DOCUMENT RESUME

ED 334 541 CS 010 626

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TITLE Young Children's Storybook Reading: Longitudinal Study of Parent-Child Interaction and Children's Independent Functioning. Final Report.
SPONS AGENCY Spencer Foundation, Chicago, Ill.
PUB DATE Nov 87
NOTE 119p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Beginning Reading; *Bilingualism; Cross Cultural Studies; Cultural Context; Longitudinal Studies; *Parent Student Relationship; Primary Education; *Reading Aloud to Others; Reading Research
IDENTIFIERS *Emergent Literacy; Illinois (Chicago); Texas (San Antonio)

ABSTRACT

A 3-year longitudinal study combined research in emergent storybook reading with research in parent-child interaction across income and cultural groups. In San Antonio, Texas, 8 families (4 each of low and middle income, with 2 families in each group being of Mexican-American heritage and 2 of Anglo heritage) tape recorded 1 storybook reading session with their children. Findings of the descriptive studies of parent-child interactions include: (1) storybook reading is an integral part of family life; (2) storybook reading interaction becomes internalized; and (3) children spontaneously engage in storybook reenactments. In the Chicago, Illinois, area, a number of studies were conducted in which storybook readings were elicited from large numbers of preschool and kindergarten children, focusing upon low income children recently immigrated from rural Mexico and placed in bilingual classrooms in a large suburban school district. After their teachers read storybooks repeatedly to them in both languages, the children were asked to read books in both English and Spanish. Readings were audiotaped and transcribed in both languages. One cohort was followed from preschool until November of kindergarten, and another was followed throughout kindergarten. Results indicated that children in both cohorts displayed an increase in emergent reading ability across time. Results also indicated that children produced reading attempts that fit the Sulzby Classification Scheme in both languages. Findings suggest that children discover the interrelationships between oral and written language within their culture during the period from birth to the time when they are conventionally literate. (Four tables of data and excerpts from a transcribed interview are included; 155 references and family demographic data are attached.) (RS)

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YOUNG CHILDREN'S STORYBOOK READING:
LONGITUDINAL STUDY OF PARENT-CHILD INTERACTION
AND CHILDREN'S INDEPENDENT FUNCTIONING

Final Report to

The Spencer Foundation

November 1987

Ann Arbor: The University of Michigan

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YOUNG CHILDREN'S STORYBOOK READING: LONGITUDINAL STUDY OF PARENT-CHILD INTERACTION AND CHILDREN'S INDEPENDENT FUNCTIONING

Final Report to
The Spencer Foundation
November 1987
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Abstract

For three years, two teams of researchers have collaborated in a study of young children's storybook reading, combining Sulzby's and Teale's research lines in emergent storybook reading. In San Antonio, Teale and his colleagues observed parent-child book reading in eight families, four each of low and middle income, with two families in each group being of Mexican-American heritage and two of Anglo heritage. In the Chicago area, Sulzby continued to refine the Sulzby (1985) Classification Scheme for Emergent Reading of Favorite Storybooks with data collected as part of Sulzby's (1983) previous Spencer Grant and to collect new data focusing upon low income children. Tone group analysis with the previously-collected data indicated the possibility that parent and child jointly construct tone groups in parent-child storybook interaction. Using white noise filters over young children's audiotaped speech, she and her colleagues found that naive linguistic judges made reliable discriminations between storyreading and storytelling intonation.

In the Chicago area, researchers conducted a number of studies in which storybook readings were elicited from large numbers of preschool and kindergarten aged children, focusing upon low income children. The Sulzby Classification Scheme was found to discriminate between children who were selected for extra assistance in kindergarten through "developmental kindergartens" as effectively as did traditional school-selected instruments. The major group of studies in Chicago focused upon low-income children recently immigrated from rural Mexico and placed into bilingual classrooms in a large suburban school district. After their teachers read storybooks repeatedly to them in both languages, these children were asked to read books in both English and Spanish. Readings were audiotaped and transcribed in both languages; the Spanish readings were also translated into English, but judgments were made both in the original Spanish by Spanish-speaking judges and in translation by Spanish-speaking and English-speaking judges. One cohort was followed longitudinally from preschool until November of kindergarten and another was followed throughout kindergarten. Children in both cohorts were found to increase in emergent reading ability across time, but children who were in the preschool were not significantly higher in November of kindergarten than were kindergarteners of either cohort who had not been in preschool. Children produced reading attempts that fit the Sulzby Classification Scheme in both languages, with significant correlations between the two languages. The ability of these children both to listen to and reproduce connected discourse from storybooks read to them by their teachers was believed to have important implications for using emergent literacy techniques in bilingual classrooms.

The descriptive studies of parent-child interaction were summarized with six generalizations: (1) storybook reading is an integral part of family life; (2) storybook reading is a socially constructed activity; (3) storybooks change over time; (4) storybook reading interaction becomes internalized; (5) variation in language and social interaction is characteristics of storybook reading; and (6) children spontaneously engage in storybook reenactments. Based upon the finding that these children spontaneously reenacted favorite storybooks, the researchers elicited storybook readings from a wider range of children from each of the four groups represented in the family studies (low and middle income Anglo and Hispanic backgrounds) and found that the reading attempts were highly similar. The report concludes with a discussion of research issues and brief descriptions of emergent literacy implementation projects building upon the techniques and effects of the project.

Young Children's Storybook Reading:
Longitudinal Study of Parent-Child Interaction
and Children's Independent Functioning

For the past three years, we have been studying how parents read to their preschool-aged children and what it is that young children seem to internalize from being read to. We have combined Sulzby's research in emergent storybook reading with Teale's research in parent-child interaction across income and cultural groups. In San Antonio, Teale and his colleagues observed parent-child book reading in eight families, four each of low and middle income, with two families in each group being of Mexican-American heritage and two of Anglo heritage. In the Chicago area, Sulzby continued to refine a classification scheme and elicited new storybook readings from preschool-kindergarten children. Some of these readings were from low and middle income Anglo children; the majority were from children whose families had recently immigrated from rural Mexico. These children read the same books in both English and Spanish.

Background. Results from previous research had strongly suggested that parents' reading to their young children was highly beneficial for the children's literacy development. Sulzby (1983, 1985) had begun to trace developmental patterns in young children's emergent reading attempts with favorite storybooks. Teale's (1984) studies of parent-child interaction in storybook readings had begun to suggest that at least some of these

developmental patterns were being internalized in these home storybook reading events. His work also suggested that there was great variation in the styles with which parents read to their children which could not be accounted for by simple explanations tied to such variables as income level and ethnicity.

Sulzby (1985, in press) had proposed a theoretically-based classification scheme which she had tested with children aged two to six, primarily from middle income mainstream US families. She posited that young children are becoming literate within cultures that make various kinds of distinctions between oral and written language and explained the lower frequency of many examples of one of her sub-categories, the oral monologue, as being due to the highly literate nature of the mainstream culture from which her subjects were drawn. She suggested that the sub-category would be present if the children being asked to read were from a culture in which there is a strong oral tradition.

Some researchers have suggested that children from cultures that are more oral than literate have greater difficulty in learning to read and may need different kinds of introductions into schooling. With the advent of the perspective of emergent literacy (see Teale & Sulzby, 1986), researchers became able to study the characteristics of children's literacy development prior to formal schooling. Our project with rural Mexican immigrant children afforded us an opportunity to examine the emergent reading behaviors of such children as they begin to be read to both in their native Spanish and in English.

Proposed values of the research. In our proposal, we mentioned a few of the values of research in storybook reading which we will review here and return to at the conclusion of this report. First, research in early literacy

development is seen as increasingly important, along with research in other kinds of child development, because of the tremendous impact early development has on all of a person's later learning. The family is viewed as playing a crucial role in children's early literacy development, with the so-called "informal" instruction in middle class homes seeming to contribute to early starts and retained gains well into formal instruction. This study takes one of the most intimate and important types of parent-child interaction, storybook reading, and directly investigates what the child internalizes from that interaction. Additionally, it investigates both low and middle income families.

Second, our research was designed to contribute to the development of a model of literacy acquisition. We posited that some kinds of development might be more conducive to highly literate reading and writing than others. The model we are developing is built on the assumption that children internalize certain understandings about the relationship between oral and written language and about the reader-writer relationships and that these understandings aid children in developing into adults who can read and write complex texts of the kinds enjoyed and used in modern Western literate cultures. Our research was a test of the assumption about the content of children's understandings.

Finally, our research was designed to make educational contributions, particularly in instructional design and policy. In particular, we saw it contributing to the design of developmentally-appropriate instruction for the early years--instruction that would build upon the emerging literacy concepts that children bring to school with them from parent-child interaction with book reading.

Plans and accomplishments. Now we review briefly the overall outline of the research program, pointing to changes that were made between the proposal and its implementation (proposal, pp. 25-27). Fuller details about reasons for our early decisions to shift the emphasis in our Chicago project to Spanish-English comparisons with children in bilingual classes can be found in our two interim reports, particularly the first year report.

The Chicago project focused on the linguistic and interactional patterns in the data from both projects. Thus far we have been quite successful in examining the linguistic patterns of oral and written syntactic and lexical choice and of intonation (Reuning, 1986; Sulzby & Reuning, in progress) and have begun examining the interactional patterns across the home and classroom data. In particular, we plan to continue the work begun in Sulzby's (1983, in press) first Spencer grant, in which certain interactional patterns between some examiners and children appeared to result in dependent rather than independent readings (see Hieshima & Sulzby, 1985). Thus far, our analysis of interactional patterns has been applied primarily to the San Antonio family data (Teale & Sulzby, in press).

As planned, the new data in the Chicago project came from low income families of Hispanic and Anglo background. Our plans were a progressive narrowing from children from low income backgrounds not restricted by language or ethnicity to a specific comparison between Anglo and Hispanic children. Opportunities arose that led us to a large-scale study of children learning both Spanish and English enrolled in bilingual classes in a US school district, comparing their readings of the same books in both languages. These children were from families who had recently immigrated from rural Mexico (outside Mexico City). Their parents were working in factories in a suburban

area about 30 miles from Chicago, and the families were living in two large apartment complexes for low income families. Other studies comparing low income and middle income children were conducted as well (Barnhart, 1986; Reuning & Sulzby, 1984). All data from this project are being compared with data from Sulzby's previous projects with children from middle income families (1983; 1985; in press), particularly with regard to the theoretically-posited oral-written language differences.

The San Antonio project fulfilled its plans to study parent-child interaction in eight families (four families each of low and middle income, two Anglo and 2 Hispanic). The Hispanic families were all of Mexican-American background. Earlier we communicated with the foundation about difficulties in retention of some of the low income families; those difficulties are discussed in the section on the San Antonio project. We replaced all the families who withdrew so that all families have been studied for a minimum of 7 months. Three of the families were in the study from 2 years to 2 years and 9 months.

The originally-proposed Timeline for both projects is reproduced below. Any deviations from the original plan are noted briefly in bold type.

Year One, January 1984-August 1984:

Chicago project

Refine linguistic analyses using existing videotaped data from previous Spencer-supported project.

Analyze interview structures of low income children in existing data base.

Observe weekly in participating day care center. **Developmental kindergarten substituted.**

Train researchers at both sites in Sulzby classification scheme.

Collect storybook reading attempts from 20 low income children, not restricted by ethnicity. **Low and middle income comparison made by comparing developmental with regular kindergarten children.**

Refine elicitation techniques and generate hypotheses about differences between low and middle income children's storybook reading attempts.

San Antonio project

Train assistants in Sulzby classification scheme and elicitation techniques.

Begin family studies with 2-3 families in the spring.

Total family participation gained early in summer for beginning of longitudinal study. **Accomplished but four families had to be replaced during study.**

Year Two, September 1984-August 1985:

Chicago project

Continue development of linguistic analyses

Large scale storybook reading comparing middle and low income children (N=20 each), mixed ethnic/cultural backgrounds but including hispanic children (October). **Substitution of the following studies: (1) second study of developmental versus regular mixed-ethnicity kindergartners; (2) Barnhart's (1986) study of low and middle income Anglo kindergartners; (3) comparison of Spanish-English storybook readings of bilingual (we use the term bilingual throughout as a shorthand for children enrolled in bilingual classes, not meaning that the children were equally proficient in both languages) kindergartners in November and May; and (4) comparison of Spanish-English storybook readings of bilingual preschoolers in February and May.**

Post-hoc analysis of ethnic/cultural backgrounds.

Classroom observations continue weekly. **Widened to observations in 22 teachers' classrooms [20 regular kindergarten (one of which was changed to a developmental kindergarten mid-year),**

1 bilingual kindergarten, and 1 bilingual preschool].

Generate hypotheses/refine existing hypotheses about Anglo-Hispanic differences in storybook reading.

Large scale storybook reading study comparing low income Anglo and Hispanic children. **See above; Anglo and Hispanic children were not compared directly.**

San Antonio project

Longitudinal study of family literacy

--parents to audio-tape at least one book reading per week. **Began this often but gradually lessened; an average of once per month evolved as the standard.**

--parent and researcher review the tapes.

--researcher observes storybook reading once per month, audiotaping and videotaping. **Occasional observations and from one to three videotapes per family.**

--parents keep log of readings. **Parents were resistant, preferring personal discussion. Some were kept but quality was low.**

--researchers plant favorite books of Anglo and Mexican-American children for repeated readings. **Books were planted in families. Anglo and Mexican-American comparisons replaced with Chicago bilingual studies.**

--Large scale comparisons (two) with children not included in study, including storybooks planted in homes. **Only one conducted.**

Year Three, September 1985-March 1986:

Including one year extension to March 1987

Chicago project

Second Anglo-Hispanic low income story reading data collection. **Completed longitudinal study of bilingual preschool children at entry into kindergarten; used November data collection date in order to compare 1984 and 1985 bilingual kindergartners.**

Complete data analyses and collaborate in writing final report.

San Antonio project

Continue family study through December 1985. **Continued through November 1986.**

Third Anglo-Mexican American comparison. **Replaced by bilingual studies in Chicago.**

Complete data analysis and collaborate in writing final report.

We will not comment now upon changes from the proposed analysis systems. The primary analysis system continued to be the Sulzby (1983, 1985, in press) classification scheme for emergent reading of favorite storybooks. Methodology in any new area is extremely important, and we have reserved a final section of this report to discuss methodological issues.

Analysis of Previous Data

Linguistic Analyses

In our first interim report (Sulzby & Teale, 1984), we described four projects involving data gathered in Sulzby's (1983) previous grant from the Spencer Foundation, in which 32 children ranging in age from two to five years old were asked to read "favorite storybooks," at intervals over a year's time. Videotapes and transcripts from this earlier study were used as the data base for detailed linguistic analyses of the nature of young children's emergent storybook readings (also referred to, interchangeably, as reading attempts or reenactments). The four projects included the following: (1) development of an annotated manual to accompany a videotape giving examples of the sub-categories of Sulzby's (1983, 1985) classification scheme; (2) exploration of intonational notation systems; (3) computer analysis of digitalized speech; and (4) filtered speech judgments. Projects 1 and 4 have been expanded and completed; project 2 was used in conjunction with project 1 and is still in progress; and project 3 has been abandoned for now, due to poor tape quality and inadequate computer programs at Northwestern University for analyzing child speech. Following discussion of these projects, we present new projects that have been conducted or are planned.

Training tape and manual. Videotapes from the previous study were analyzed for exemplars of the eleven sub-categories of Sulzby's classification scheme. This classification scheme requires judges to classify a child's speech during a reading attempt or reenactment into one of the eleven sub-categories by treating the full attempt as the unit of analysis, rather than scoring, for example, on a page-by-page, paragraph-by-paragraph, or proposition-by-

proposition basis. It requires judges to make judgments about characteristics commonly associated with oral or written language. Two aspects of the child's speech were treated as being critically important for distinguishing between features of oral and written language: the wording (including lexical choices and syntax) and intonation.

The exemplars were combined into a training videotape and a manual was designed to accompany the tape. The manual includes an explanation of how the child's reading attempt fits the selected sub-category, a typed transcript, and a transcript showing intonation, using a system devised by Gumperz (1982) and modified with tone unit analysis (Brazil, 1984; Coulthard & Brazil, 1982).

We have used this training tape with our own research staffs in both sites, with undergraduate and graduates students in education, linguistics, and psycholinguistics classes, and with classroom teachers. Adults can be trained to use the Sulzby classification scheme with the training tape and sufficient practice. We have, additionally, been devising a simplified form of the scheme which we discuss in our section on educational implementations.

Intonational Studies

Since the Sulzby classification scheme depends heavily upon judgments about how children's speech reflects features of oral and written language, the projects that follow address the issue of the psychological reality of such features as "reading intonation" and the "wording of written language." In making the judgments required by the classification scheme, listeners agree that a child's intonation may sound like dialogue or conversation, like storytelling, like reading, or like a mix of storytelling and reading. Readers of

transcripts often have to ask questions about intonation in order to make such judgments and are dependent upon observations from listeners, even though our previous research (Sulzby, 1983) found that judges agree strongly when reading typed transcripts and when viewing videotapes. The following projects investigate, in different but related ways, the issue of whether there is such a phenomenon as "reading intonation" and whether or not the intonational information can be separated from the wording of the passages. Sulzby (1983, in press; see also Schickedanz, 1986) has reported observations of young children using reading intonation while babbling to books; it would be of theoretical importance if the intonational patterns of full-text reading were in place before the child begins to imitate more limited interactional patterns including specific words (see our discussion of how parent-child reading changes over time).

Intonational notation systems. As described in our first interim report (Sulzby & Teale, 1984, pp. 8-16), we have explored three notational systems to capture children's intonational patterns during emergent reading attempts. This work is important for general linguistic purposes as well as for understanding what children are learning about reading. In particular, we have investigated the nature of what naive listeners can identify as "reading intonation" in contrast with conversational or storytelling intonation. Children's ability to use speech features differentially for these purposes is part of general communicative competence. Yet it is more specific, in our view. As part of reading development, intonational features may have facilitative effects in preparing the child to attend to key features of printed language, both in parent-child speech during storybook reading and in the children's speech during reading reenactments.

An immediate, utilitarian goal for intonational notation is to use the system to mark transcripts so that readers of our research reports can read them and reconstruct the intonational patterns from print. A more important, and longterm goal is to use the systems to discover underlying features of the intonational patterns that will help us understand the relationship between parental speech during storybook reading and the child's development of "reading intonation." We have reached one intriguing speculation following an audiotape and videotape of parent-child conversation and storybook reading that we developed for this purpose. Using Coulthard and Brazil's tone unit analysis, it appeared that one difference in conversation and reading was that the parent and child "cooperated" in creating jointly-produced tone units in story reading. (This occurs when the parent begins a phrase and the child finishes it, with the two sharing an intonation curve.) We intend to return to this line of work, but it is temporarily on hold.

All three systems that we have used (Bolinger, 1972; Coultard & Brazil, 1982; Gumperz, 1982) have captured some parts of the distinction between reading and conversational or storytelling intonation, but problems with each have led to us emphasize the studies of filtered speech at this time. Similarly, we have had difficulties with computer analysis of intonational patterns.

Computer analysis. In our first interim report, we discussed our attempts and difficulties in using digitalized speech (using AUDED) as input for the SIFT and SIFDSP (Smith, 1980) programs. These programs sample the speech signal at 10 msec. intervals and display the signals in both graphic representation of intonation contours and in tabular forms. The samples which we used were taken from the original videotapes and from a specially-prepared audiotape in which there were samples of the same child shifting

between conversation and reading attempts. We found that the existing programs available at Northwestern University were inadequate for this purpose and we will be pursuing the available programs at the University of Michigan in the future.

One major problem in this analysis is a result of our existing methodology. We elicited children's speech in a reading situation in which children shifted spontaneously into conversation. Thus, the children were saying different things in conversation and in reading and the reading attempts themselves varied in how much they were judged to be like reading, storytelling, or conversation. In the specially-prepared audiotape, there were instances in which the same or almost the same phrase was used in both conversation and in reading from two books. This resulted in pairs of equal-syllable reading and conversation speech samples (six adult and eight child samples from Goodnight, Moon and ten adult and eleven child samples from Are you my mother?). At this point, we consider our potential for using the computer analysis to be exploratory only, but it has led to a worthwhile analysis of filtered speech.

Filtered speech. This project was discussed in some detail in our two interim reports and has partially been reported in the M.A. thesis of Christa Reuning (1985; see also Sulzby & Reuning, in preparation, for the full statistical analysis), a Northwestern University student in Linguistics and the interdepartmental program in Language and Cognition. Samples of filtered speech were played for adult judges under acoustically controlled circumstances. Judges were asked to decide from each child's speech sample whether the child was reading from a book or was telling a story. A 7-point scale was used to measure degrees of certainty. Additionally, judges were asked

to write explanations of what they used in making each decision. In order to control for different semantic content, we selected children's speech given in response to pp. 22-26 of Are you my mother? (Responses to pp. 38-44 were also prepared and will be used in a replication at the University of Michigan).

These samples were randomly ordered and played twice for adult judges under two filtering conditions (400 and 700 Hz). These filters allowed judges to hear the intonation patterns but not detect the words, thus separating the intonation information from the semantic content and testing whether listeners can make use of "reading intonation" information independently of the wording of reading attempts. The 400 Hz filter was used first with all judges. The 400 Hz filter did not allow the full fundamental frequency contour to be preserved for all children but it did fully mask the wording; the 700 filter allowed an occasional word or short phrase to be identified by some of the judges. Analyses of variance applied to the quantitative results indicated that judges could reliably distinguish between "reading intonation" and "storytelling intonation." Three categories of intonational features were cited most consistently as distinguishing reading from storytelling intonation: contour, pacing, and "emotion" (referring to expressiveness and dramatic delivery). These criteria fit both with current thinking in the linguistic study of intonation and with features which Sulzby had claimed for the unmasked judgments of reading intonation. We are now planning a replication of this study with a similar passage in the same book, using groups of judges that will include teachers of young children, and a more refined judgment instrument, focusing on some of the features identified in the first study.

New project in written language wording. The issue of the difference between intonation and wording is important linguistically, but it also

promises to be important in the theory of emergent literacy which we are moving toward.

In the first four projects described above we explored the psychological reality to adults of children's reading intonation. In a new project, we are exploring the psychological reality to adults of children's choice of the wording of written language, as opposed to wording more appropriate to oral language. Two groups of college students, first term undergraduate linguistics student and graduate linguistics students, were asked to read unpunctuated transcripts from the children's reading attempts for the passages used in the filtered speech study reported above. These students were asked to identify whether or not the transcripts were from children telling stories or reading from a book, to indicate the degree of certainty of their judgments, and to write explanations of the features which they used to make the judgments. These data are collected and will be analyzed during Fall, 1987.

In some of the reading attempts from the bilingual children in the Chicago site discussed below, these children from a predominantly oral culture (from rural Mexico near Mexico City) gave reading attempts in which the syntax and lexical choices were specified in the manner that one would expect for a written text, yet the intonation was overwhelmingly that of oral storytelling (see Sulzby & Vazquez, 1987). Most of the reading attempts which Sulzby has classified as "oral storytelling" for mainstream English speaking children have been "contextualized" to the pictures (cf. Olson, 1977), yet in real life situations, storytellers often produce "decontextualized" language which the listener can understand without reference to pictures or the immediate context. Even when these storytellers use wording that seems similar to written usage, they use intonation patterns designed to keep the

listener engaged with the speaker. This oral intonation is markedly different from reading intonation.

Reading intonation for monolingual English-speaking US preschoolers, according to the judges in the filtered speech study, can take two forms, but both are different from those samples which were judged to be storytelling. One form of reading intonation is the monotonic, word-by-word form which sounds like a stereotypical "beginning reader." This form is speculated to be particularly facilitative for young emergent readers noticing discrepancies between predicted wording and graphic information on the printed page (Sulzby, in preparation; Sulzby, 1986).

The second is that of the "expressive oral reader" (Reuning, 1986) in which the child appears to be reading expressively and non-monotonously, but yet does not have the intonational pacing and variation associated with oral storytelling. We speculate that this form is associated with the internalization of "written language delivered orally" (see Sulzby, 1986; in preparation; also King & Rentel, 1981) that has become part of the speech patterns of speakers from cultures that are predominantly literate.

The tie to the initial entry into conventional reading is somewhat more difficult to understand, but it appears to be related to Sulzby's (1983, 1985, in press) contention that there is a level of emergent literacy in which three functionally-equivalent aspects of reading are focused upon by children (level 9, Reading aspectually). At this level, children may focus upon one or more of three aspects of conventional reading: letter-sound relationships, word knowledge, or comprehension. The two aspects of letter-sound relationships and word knowledge might be facilitated more by the "beginning reader" pattern, but the aspect of comprehension might be

facilitated equally well by the "expressive oral reader" pattern. Eventually, children bring these aspects back together again in "Reading with strategies imbalanced" (Level 10) and "Reading conventionally" (Level 11), but in reading conventionally in "real life" children must deal with texts which they have never had read to them.

Children reared in literate cultures not only pretend to read books which they have been read (the topic of this study) but they also pretend to read books which they have not heard read. In this manner, they are predicting the semantic and syntactic content of the text of the books, an important part of comprehension in conventional reading. Just as we have found that children use the story wording which they have heard read to them to predict and confirm parts of print in familiar books, we anticipate that they use their predictions about texts never before heard to begin to deal with the print in new books. This study does not extend to these situations but they are a fruitful area for future research.

Analysis of refusals. In Sulzby's (1983; see also Sulzby, in press) final report on her previous Spencer grant, she discussed the issue of unexplained refusals. These refusals were not total refusals because all of the children in the study later interacted with the adult examiner who read to them and gave them overtures to complete sentences, repeat phrases, turn pages, or respond in other ways. Nevertheless, a large number of the children refused to read without explanation (as distinguished from Level 8, Refusing to read based upon print awareness, in which children state the print-related reasons for why they will not attempt to read). We re-analyzed the videotapes and transcripts from these sessions and concluded that three features of the interview situation were critical in determining whether or not an

unexplained refusal can be treated as valid or not. First, the adult must wait patiently for sufficient time to allow a young child to decide whether or not to respond and how to respond. Second, while being responsive to the child's affective behavior, the adult must follow the prescribed encouragement schedule (see examiner's manual, Sulzby 1983, and our current manuals, available upon request; also Hieshima & Sulzby, 1985). Third, and most important for all emergent literacy situations, the adult must act in a manner that we describe as "quietly confident" that the child will engage in the reading (or writing) tasks.

This third feature appears to be critically important. From interviews with an examiner from the Sulzby (1983) study, we learned that the adult made decisions that overrode her training. These decisions were based upon the adult's concept of what sensitivity to young children required and upon the adult's preconception that asking the child to read a book was a threatening request. This adult rushed through the encouragements, thus terminating her request for the child to read, based upon her interpretation that the child was "feeling frustrated." She then initiated interactive reading.

For the studies in the Chicago site (as well as for some of the work in the San Antonio site), we devised training procedures which stressed the importance of the positive statement of each of the above features, but in particular the third one. The guidelines for eliciting storybook readings were as follows: (1) allow sufficient wait-time, (2) use the encouragements in the manual, in a conversational, "non-memorized" intonation, and (3) convey an attitude of quiet confidence in the child's ability to take part in the reading activity and of your acceptance of the child's behavior, whatever that may be. (A fourth change was to attempt to move the child from a dependent to

independent reenactment by saying, after reading to the child a while: "Now it's your turn. Read to me.")

We have come to understand that implementing these procedures requires a reconceptualization of young children, literacy, and the fields of early childhood/child development for the persons who are engaged in this research with us. Thus we have come to expect developmental patterns in our research assistants and associates as well as in our young informants. The first pattern is similar to the development of other linguistic skills. The adult examiners typically read our previous studies and manuals and make quite accurate placements of children's emergent readings into the classification scheme. Then, they seem to "fall apart," and make numerous errors and inconsistent judgments (inconsistent even with their own previous judgments). Finally, they appear to begin to understand the underlying concepts of the classification scheme and return to accurate judgments. The second pattern is more pervasive and difficult to deal with. This is an expressed fear on the part of the examiner of pressuring children that leads to the examiner to bypass the established procedures and entering into interactive readings, even when videotaped and audiotaped records do not provide evidence that the children are "frustrated" or "pressured." From detailed observations and interviews with teachers in an emergent literacy project focusing upon writing development (Buhle, 1987; Sulzby & Buhle, in progress) and in an ethnography of morning and afternoon kindergartens (Hieshima, in progress), we have identified that the change from skepticism to easy acceptance of children's emergent literacy behaviors takes at least eight months of in-classroom practice for well informed and highly committed teachers. Certainly, for us, these changes came from long months and years of

research. Sulzby (1985) recounts that her discovery of the simple technique of asking children to, "Read me your book," came from observing spontaneous behavior of children, not from enlightened pre-planned research techniques.

The procedures which we devised based upon our re-analysis of videotapes from the previous study were effective in our current project with one exception (a researcher who had been highly successful with five-year-olds reverted to the overly concerned elicitation pattern when first beginning to work with four-year-olds). This problem was accommodated for in our data analysis strategy explained in Section two.

Other analyses that can still be conducted on the previous data base. Now, however, we turn to the current project.

The Chicago Project: New Data

In the Chicago project, our goals were to investigate in greater detail the linguistic features of the Sulzby (1985) classification scheme for emergent reading of favorite storybooks and to extend our study of emergent reading to low income Anglo and Hispanic children. In this section, we focus upon the new data that have been collected from low income children, particularly from bilingual Spanish-English speaking children from Mexican backgrounds.

In our previous research (Sulzby, 1983, 1985, in press), we had collected reading attempts from middle income kindergarten children and from children enrolled in a day care center the enrollment of which was typically only about one-fourth low income. Although the day care enrollment during our study included more children than usual (about half) from homes in which there were difficulties such as low income, parental separation, or low educational backgrounds, we felt that we had not yet studied the phenomenon of emergent literacy with a sufficiently large group of low income children to be certain that (1) the general phenomenon would be seen in this group and (2) that the same sub-categories of the classification scheme would be evident. We expected that, if the children were from a linguistic background in which oral rather than written features were more predominant, the sub-category of oral monologue might be more evident than it had been in the earlier studies.

We conducted two types of studies, of differing importance to the project. First, we carried out three studies comparing low and middle income kindergartners. The first two were comparisons of so-called "developmental"

and regular kindergartens, in which the students chosen for these two categories also varied by income level. The third was a comparison of two classrooms of kindergartners from two different schools, one of which housed children of predominantly low income and the second, children of upper-middle income families.

The second and more important type of studies involved bilingual children's readings of the same storybooks in both Spanish and English. This project included both cross-sectional and longitudinal comparisons. We describe these two groups of studies in order.

Low and Middle Income Comparisons

The findings from these three studies confirmed that the Sulzby classification scheme covered the categories of emergent reading from favorite storybooks shown by both middle and low income kindergartners of mixed ethnicity. (We explain our choice of the terms "low income" and "middle income" in more detail in the method section for the bilingual studies; we understand that income is a surrogate variable for a number of characteristics that cluster together and also that there is variation within each group.)

A number of the low income children used immature speech or non-standard grammar (BEV or Appalachian variations). The scheme could be applied to reading attempts by these speakers; the judges were instructed to ignore features of these speech variations and to focus upon reading intonation and the "wording of written language." Judges were able to do this with good agreement, but these findings point to the need for even more precise linguistic description of the characteristics of emergent reading attempts.

In the first study (Reuning & Sulzby, 1984), we reported on differences between low and middle income children's storybook reading attempts in a small school district that clustered all the primary grades in one elementary school. In this district, the children selected for a full-day "developmental kindergarten" not only scored very low on a screening instrument used to estimate kindergarten readiness but also came from low income homes (a common occurrence in many districts). We compared the emergent storybook reading attempts by these children with children from middle income families; these middle income children were matched for age and sex but were at the high end of the instrument used for selection of the "developmental kindergarten" children. The two groups of children also differed significantly in emergent reading of storybooks that their teachers had read to them repeatedly at our request.

This was the first study in which we had used the Sulzby classification scheme to test for differences between groups of children of the same age; previous uses of the scheme had been to test for differences between children of different ages and to test for longitudinal (within-child) differences. In this case, we made the most lenient test, comparing children at different ends of a distribution with an instrument that had been used for a number of years to place children in a developmental (full-day) classroom.

In the second study, in a different school system, we made a more stringent test of the Sulzby classification scheme for similar purposes. The staff in one school in a large suburban school district had decided to make use of small enrollments, an available kindergarten teacher, and extra funds from the district to provide a full or "extended day" for the children whom they judged to be most in need of additional schooling. From the 44 children

enrolled in three half-day kindergarten classrooms, 11 were selected by the district staff (kindergarten supervisor, reading and speech specialists, and kindergarten teachers) for the extended day class.

Before the children were selected for extended day, we had asked the teachers to read to the children repeatedly from two storybooks. In brief, we found that children's reading attempts from two books which we had selected were stable (consistent with Sulzby, 1983; Reuning & Sulzby, 1984). The children's performance on the emergent storybook reading scheme was consistent with the school's selection procedure, even though neither we nor they knew the findings of the other until the study was completed.

While the children's reading attempts were stable across the two storybooks we selected, we found a different pattern for a subset of the children. The teacher of these children substituted for one of the books which we had suggested a "pattern book" which was not a storybook. Partly because vacation schedules did not readily allow re-scheduling the study, particularly since both groups of children were expecting to read to the researchers and the other teacher in the study had used the books we requested, we took this substitution as an opportunity to test the classification scheme against a genre format for which it was not designed. Consistent with our expectations, the children's performances were markedly different; rather than making oral and written language distinctions in their speech, they all recited the pattern book (Bill Martin's Brown, Bear, Brown Bear) as a verbatim or almost verbatim whole, but without the self-correction and overgeneralization behaviors associated with these categories in the Sulzby classification scheme. Their behavior with the storybook that we had selected varied across the different sub-categories as expected, following the patterns in our previous studies.

If it replicates, this serendipitous finding promises to be of some importance in studying the linguistic features of the written texts of children's books. (This is an area which we hope to expand in the future, making use of a cross-cultural data base of children's books, beginning with Japanese and English books and expanding to Chinese and Spanish books: see Wellman, Sulzby, & Stevenson, 1987.) While we have demonstrated children's emergent reading stability across storybooks, the storybooks we have used and that children have selected as favorites tend to use a high degree of structural and linguistic features appropriate for written language. We speculate that different books are differentially conducive to allowing or encouraging children to display emergent reading behaviors (see Sulzby, 1983b), depending upon the ways in which oral and written features are used. (Here we need also research in other genres in addition to the narrative form of the "storybook.")

The finding would also have educational implications for certain currently recommended instructional techniques in which children are encouraged to "memorize" stories or poems and then to reread by pointing to the print. We need to investigate this part of emergent reading more carefully and in the meantime to analyze texts used in classrooms for their oral/written characteristics.

The third study of low and middle income children's emergent storybook reading was a collection that June Barnhart (1986) added at the end of her dissertation project. These data are not reported in the dissertation which was an investigation of the emergent writing of kindergarten children, using techniques of Ferreiro (Ferreiro & Teberosky, 1982) and Sulzby (1983a, 1985; Sulzby, Barnhart, & Hieshima, in press). This study was done in two

different schools in the second district described above. One of these schools was attended primarily by low income children from low rent apartment complexes. The second was attended by middle to upper-middle income children. Their teacher reported that she would not teach reading to these children because they come to school with such experience and academic readiness that she felt she must stress socialization. The first teacher did not teach reading as such, but did provide a structured readiness program which placed great emphasis upon letter sound discrimination and identifying likenesses and differences in phonemes. This was the same program that was used by the teacher of the low-income children. These two groups of children differed significantly on most of the writing measures as well as on the storybook measure.

In this test of the classification scheme, the full range of measured ability in an intact low income classroom was significantly different from that in an intact middle to upper middle income classroom. It also provided a large number of transcripts of children from the high income classrooms who were attending to print. These transcripts can be used as examples in training other researchers and teachers to distinguish between children reading conventionally and those just approaching conventional reading. From a recent trip that one of us took to the Reading Recovery project at Ohio State University, from Barnhart's use of Ferreiro's techniques, and from our recently-completed study of kindergarten writing and rereading from writing (Sulzby, Barnhart, & Hieshima, in press), we are convinced that this distinction is critical, particularly in analyzing the oral reading strategies of children deemed "at risk of failure" in first grade.

Together, these three studies confirmed the expectation that low and middle income children would differ in emergent reading ability as well as in other previously-reported achievement characteristics. On the other hand, the differences are not as great as they would have been if we had not deliberately separated immature speech and non-standard grammatical usage from features of emergent reading. That is, we think we have evidence for more knowledge of literacy in children who would be judged "low ability" or "low in readiness" than would have been captured by using traditional measures and elicitation techniques.

In the studies that follow, the more extensive and important studies of the Chicago project, we examine how low-income children read in two languages, Spanish and English, when they are in the process of acquiring both languages. In these studies as well as those just described, we focused upon the overall structure and features of the emergent reading attempts as described by Sulzby (1985, in press) and not upon correct lexical choice and pronunciation or upon correct syntactical form at the sentence level.

Spanish-English Emergent Reading By Bilingual Children

As reported in our first interim report (Sulzby & Teale, 1984), at the beginning of the 1984-85 school year, we entered into a collaborative agreement with the second largest school district in the state of Illinois, to offer assistance primarily in the kindergartens. The district has 14 elementary schools, and had 24 kindergarten teachers for that year, 20 of whom taught two classes per day (morning and afternoon sessions). One taught the "extended day" program described previously and three others taught only one half-day session. We agreed to give workshops and in-

classroom demonstrations, helping teachers to understand children's emergent reading and writing. The district, in turn, agreed to serve as a site for training research assistants and consultants and for conducting research. (While this district is the same as the one in which the previous two studies were conducted, we saved description for now because the bilingual studies reported in this section are the central focus of the Chicago project.)

Many of the schools in the district were designated as eligible for Chapter One assistance due to the number of low income children attending. One of these schools housed two sessions (morning and afternoon) of a Spanish/English bilingual kindergarten. We studied both sessions of kindergarten children from this classroom in fall and spring of 1984-1985 and then studied a second cohort of kindergarten children in the fall of 1985 in this same room. This second cohort included children who had continued from the bilingual preschool as well as new children added to the sample. A second school housed a bilingual preschool, funded for three years under Title VII, which also had morning and afternoon sessions. This class began for the first time in November of 1984, as reported in our first interim report. In January, 1985, and May, 1985, we elicited emergent readings from these children and then followed them into the kindergarten as described above. (Thus we were able to compare the fall reading attempts from two cohorts of children and to have longitudinal comparisons across each separate group: November and May of 1984-85 kindergarten cohort; February, May, and November 1985 of preschool-kindergarten cohort.)

While children selected for these two classrooms came from schools in which there was a high concentration of low income children, the primary qualification for the bilingual class was low English proficiency. The school

district had two categories for Spanish-speaking children: bilingual classrooms for children with very low English proficiency and mainstream classrooms with ESL (English as a Second Language) tutoring for children whose English proficiency was sufficient for them to have most of their lessons in English. Thus we were working with the children with the lowest English proficiency in the district. Additionally, from the district records and from such evidence as notes from home, these particular children did come from homes in which the level of parental literacy was quite low in Spanish as well as in English. While our original intention in the Chicago project was to study how Spanish-speaking children attempt to read favorite storybooks in English, we had quickly shifted to the more ambitious task of studying emergent storybook readings in both languages.

Three primary questions were addressed in these studies. Would Spanish-speaking children from low income and limited literacy backgrounds who had attained little English proficiency show the same kinds of emergent reading behaviors shown by low and middle income Anglo children? In what ways would these children show emergent reading behaviors across the two languages, English and Spanish? A third question was added at a more specific level: Would children whose family background was primarily oral in nature give more reading attempts using the oral monologue subcategory of the Sulzby scheme than had been evident in the previous English-speaking USA samples?

These questions need some explanation. Hispanic children from low income homes are among those children whose academic achievement as a group has been low within schools in the USA in general (Becker, 1977; Kennedy, 1978; Kennedy, Birman, & Demaline, 1986; Kennedy, Jung, & Orland,

1986; Murphy & Appel, 1984; Tharp, Jordan, Speidel, Au, Klein, Calkins, Kim, & Gallimore, 1984). If these children are also from homes in which there is low parental literacy, we might expect these children to show few signs of emergent literacy as we have defined it. Yet the few home literacy studies of such children in the USA (see Anderson, Teale, & Estrada, 1980; Anderson & Teale, 1982; Teale, 1984; Teale, Estrada, & Anderson, 1981; and the family observations reported herein) that have been conducted provide data that can be interpreted in different ways. The children from low income Hispanic families that were studied were exposed to literacy and took part in events mediated by literacy (see review by Teale, in press). These few studies do not, however, show evidence that storybook reading is a typical part of home practice in such homes although it is practiced in a few such homes (particularly in the Anglo and Hispanic homes). (And, as we note, the low income families who volunteered for the current project can be considered to be exceptional.)

The storybook scheme of Sulzby (1985, in press) is based upon "favorite storybooks." In order for this scheme to be applied, the children must have great familiarity with the storybooks being used. In our previous work (Sulzby, 1983, in press, and the studies reported above) we have had the classroom teacher read given storybooks repeatedly (from 3-5 times each) to the children. We decided to follow that procedure for these studies as well, using 5 readings in each language as our best estimate of the appropriate number of rereadings. This raises an issue in itself, related to our first question of whether or not these children will display the emergent reading behaviors seen previously. Will multiple readings of a given storybook provide sufficient familiarity with this book that the emergent reading

behaviors will be shown by these children even though they may not have had much previous exposure to storybook reading? (In this case, the first sessions in each of the cohorts are the relevant studies since in the subsequent sessions with each cohort the children will have had increasing classroom exposure to storybook reading.) Will children who have not had much exposure to storybook reading refuse to read emergently; will they show patterns other than those seen in our previous research; will the simple first exposure to repeated readings elicit the same kinds of responses? In other words, how robust is the finding of developmental patterns in emergent storybook reading with low income, Spanish-speaking children whose families are low in literacy? We cannot address that question as precisely as we have worded it, but our first readings for each age group provide some evidence.

The second question involves the display of emergent reading behaviors across the two languages of children. The additional issue involved in this question is the problem that these children are also simultaneously in the process of acquiring both languages. It might be expected that the children who were more proficient in Spanish would read at higher levels in the classification scheme in Spanish than they would in English. That is, a child who is reading at the "similar-to-original" level in Spanish might revert to the subcategory of "labelling and commenting" for English reading, if indeed these subcategories comprise a developmental repertoire of responses. Alternatively, it might be expected that the structure of emergent storybook reading might be relatively stable across the two languages, when one discounts specific lexical or syntactical proficiency. (This would be a finding similar to those from the studies of children selected for developmental

kindergarten or Anglo children from low income homes reported in the previous section who still show relatively immature speech patterns in contrast with their higher levels of emergent reading behavior .) We might, of course, simply get a higher level of unexplained refusals with English which would tell us little about the child's emergent literacy without other kinds of evidence.

This consideration is related to a broad issue in bilingual education. In bilingual education, there is a difference of opinion about the relationship between the exposure that the school should provide to the original (L1) and second (L2) language. One position is that the original language itself should be strengthened in instruction (particularly for young children still actively acquiring the basic lexicon and syntax of L1) and that progress in L1 should precede progress in L2. Another position is that young children still acquiring basic language proficiency should be immersed in English and thus will learn English rapidly because of the rapidity of language acquisition at this age. A somewhat moderate position is that exposure to both languages can and should go on simultaneously. Policy decisions in schools reflect these positions and can be seen in our classrooms.

The kindergarten classroom in our study was organized to illustrate the "native language first" position and the preschool classroom was organized to represent the moderate position (with Title VII requirements calling for an 80/20% split between Spanish dominant children and English dominant children, and instruction provided in both languages). In reality, these organizations were tempered by events governed by the teachers and by our presence in these classrooms. We explain this further in our method section.

Nevertheless, these organizations affected our expectations about what emergent literacy behaviors we might see with these children.

The first question that we asked simply addressed whether or not the children would show the emergent reading behaviors seen previously. We did indeed expect that we would see these behaviors. However, the second question was more complicated.

The second question addressed the issue of the stability of the same behaviors across the two languages for the same child. One expectation might be that the child would "recapitulate" subcategories across the two languages, using a lower level behavior in English than in Spanish. Our expectations were that the behaviors would tend to be more parallel for those children who attempted to read in both languages.

We did not know, however, how many children would attempt to read in both languages. From the structural organization, we would have expected children from the preschool in which both languages were supposed to be used in balance to have read in both languages more readily than the kindergartners who were not exposed to much connected discourse in English. Age was, of course, expected to have an effect as well; even though the younger children ostensibly had more exposure to connected discourse in English, they were nonetheless younger and might refuse to read in either or both languages.

One area of concern in this study, as in our previous work (Sulzby, 1983), was the relationship of refusals to the remainder of the category scheme. From piloting, we had learned that children who volunteered to read to us read in both languages, although often substituting Spanish reading of an English book and vice versa. We were concerned about the number and

subsequent interpretation of refusals. In the Sulzby scheme (1985) there are two levels of refusal. First is a low-level refusal with no explanation of the basis for the refusal; this typically accompanies other low level reading attempts. The second level of refusal is "refusing to read based upon print awareness," in which the child explains the basis for the refusal in ways that reveal knowledge of the necessity of using print in reading; this level usually follows a high level of written language-like reading and precedes print based reading attempts.

Things might be different with these bilingual children. For example, a given child might show a given subcategory of emergent literacy in Spanish but might totally refuse to read in English. This refusal might or might not reflect emergent literacy. One expectation was that a number of children in the kindergarten classroom would refuse to read to us in English but that most would read in Spanish. We expected that some of these would give unexplained refusals but that a few who were developing more proficient English ability and more metalinguistic awareness would refuse to read to us in Spanish as well or would read only in English. (Another suggested explanation for this type of refusal might be the association of English as the language of schooling; I am indebted to L. Barro, personal communication, for pointing out this possibility.)

Our third question addresses a specific part of the Sulzby (1985, in press) classification scheme for emergent reading of favorite storybooks and is based upon our considerations of the cultural basis of making distinctions between oral and written language. Sulzby has claimed that children growing up in a literate culture acquire both oral and written language (as evidenced in features of their oral speech in oral and written situations) prior to

acquiring conventional literacy. She claims that there will be cultural differences, depending upon the relationship between oral and written language within the culture (cf. Scollon & Scollon, 1982). (There will, of course, be individual and familial differences but if the grosser group differences appear to be detectable and stable, they should provide clues for further investigation of individual differences.) The child will demonstrate "written language" through emergent literacy behaviors, such as scribbling and rereading from scribble or reading from a storybook's pictures using reading intonation, long before the child will conquer conventional writing and reading. The child may "adapt" language such that an oral usage will appear in a written situation and vice versa (Sulzby, 1982; 1987a; 1987b). The classification scheme for emergent reading of favorite storybooks (Sulzby, 1985) was initially derived from English-speaking children from middle- to upper-middle income levels in which parental literacy is relatively high. This classification scheme appears to show a transition from oral usage to written usage, yet Sulzby (1983a) has cautioned against taking this "transition" idea literally. First, the storybook scheme only reflects part of the child's development as a reader/writer. Secondly, and more importantly, Sulzby suggests that the children's progress through the sub-categories of the scheme will be dependent in part to how oral and written language features are related in the linguistic community to which the child belongs.

One section of the classification scheme in particular appears to allow children's behavior to reflect the organization of oral and written language within a middle income US population. The children who have been assessed in the US thus far have tended to "skip" the subcategory of "monologic storytelling," although there are enough examples of the subcategory to

believe that it exists. The children go from "dialogic storytelling" to "reading and storytelling mixed." (Home observations alert us to the presence of "monologic storytelling" as a storytelling behavior but not a reading behavior for such children.)

Sulzby (1985, in press) has predicted that the "monologic storytelling" subcategory will be found more frequently as a reading behavior with children who are brought up within a culture in which the oral tradition is relatively stronger than the written. The children in the studies reported herein are from such a culture and are from families who immigrated to the US Midwest just prior to or just after the births of these children. Thus they present a means of checking this prediction.

The Studies

We have now completed data collection for five interrelated studies of emergent storybook reading by Spanish-English bilingual children. This includes data for an additional study, not included in our 1986 interim report. It also reflects the loss of 1-2 children in some groups due to removing children for such reasons as being moved to a higher or lower class or examiner error (such as forgetting to ask for a second reading). In moving from Northwestern University to the University of Michigan, data from one study were lost. We have now found the original tapes and collection forms for that study but have found none of the transcripts for that study. We have begun the retranscription process now that we are convinced either that the originals will not be found or that waiting for them to be found is counterproductive. We have funding and personnel to complete those transcriptions and translations in Fall 1987, at the University of Michigan.

Because we are reporting those data only from preliminary scoring by two raters listening to the audiotapes (and comparisons with the original examiner's scoring), the statistics we report are subject to some possible changes. These direction and significance levels of these findings are, we believe, highly dependable because of the double-checking procedures which we report in the analysis section.

The studies have been reorganized to show the two cohorts. Cohort I is the 1984-85 bilingual kindergarten group and Cohort II is the bilingual preschool from 1984-85 which was followed into bilingual kindergarten in fall of 1986.

Cohort	Study	Date	Classroom	Number of Children
I	One	Nov. 1984	Kindergarten	38
I	Two	May 1985	Kindergarten	38
(For longitudinal comparison, 35 children were present in both Study One and Study Two.)				
II	Three	Feb. 1985	Preschool	26
II	Four	May 1985	Preschool	23
II	Five	Nov. 1985	Kindergarten	35

(For longitudinal comparison, 13 children were in Studies Three, Four, and Five; 2 additional children were in Studies Three and Five; these 15 children were supplemented with an additional 20 "new" children for the beginning-of-kindergarten cohort comparisons, with separate comparisons made between the children who had been in the preschool studies and those who had not.)

Subjects. The subjects were all of the children enrolled in the two classrooms described above for year 1984-1985. Children have been used selectively for different analyses but we used the largest possible sample as our base with one exception. For Study Five, the follow-up of the preschoolers into kindergarten, some students enrolled were dropped from the study, due to exceptionally heavy enrollment (30 in each session for a total of 60) and the teacher's request that we not disturb her afternoon class any more than necessary. We included all 15 of the children who had been in either session in preschool and an additional 20 students who were not. These 20 students had not been in any preschool, and kindergarten was their first school experience. Students had been placed in morning and afternoon sessions at random so we felt justified in honoring the teacher's request and taking the additional students from the morning session only. Students in both classes were from low income homes. Almost all were from two large apartment complexes that housed a large number of Mexican-American immigrants. These students were those with the lowest English proficiency in this large district which also offered ESL classes for Spanish-English bilingual children of higher English proficiency.

Classroom settings. At the outset of the program in Fall, 1984, the kindergarten teacher was conducting almost all lessons and reading storybooks only in Spanish. A full-time aide gave small group lessons in English, working primarily on vocabulary words, using a workbook, word and picture cards, and an accompanying teacher's manual. The teacher's plan was to gradually increase the amount of English used in instruction as the year went on. The kindergarten teacher, from Central America, later began to make innovative implementations of emergent literacy techniques in social

Illinois; the aide, of Puerto Rican heritage, was an early childhood teacher certified in another state who was awaiting certification in Illinois. In this classroom, the study appeared to stimulate an interest in reading storybooks to children in both languages and the director of the bilingual program became very active in seeking out books for which there were parallel versions and making these books available in the classroom.

The research staff spent much time in both classrooms becoming acquainted with the children and teachers before beginning data collection. We also used the procedures of asking children to "read me your book," with the books present in the classroom library prior to formal data collection. We continued to visit throughout the entire period of the project, averaging 2-3 visits per month.

Procedures. The same procedures were used for all five studies. The classroom teacher read parallel versions of storybooks used in previous studies (Sulzby, 1983a, 1983b, 1985, in press; Reuning & Sulzby, 1984) to the children in group storytime. These books were surveyed by experts in linguistics and bilingual education and were judged to be appropriate for each culture and to have relatively equivalent forms in translation.

Each book was read in its entirety five times in each language version. The teachers were asked to use their ordinary reading style and to audiotape their readings. Researchers were present for the first, third, and fifth readings for the first time a book was introduced. The same book (Are you my mother/Eres tu mi mama)was used for Studies One, Two, Four, and Five and The carrot seed/La semilla de zanahoria and a self-selected favorite for each child were used for Study Three. Are you my mother is a full-length picture-storybook. The carrot seed is much shorter and was selected for the

preschoolers' first exposure to our procedures. This decision was based upon the teacher and bilingual project director's suggestion that Are you my mother might be too long for children who had not been read to much in their homes. We decided to use the third reading, from a self-selected favorite which the child could read in either language, as a check on this decision.

On the third to fifth day following the final reading of the book by the teacher, each child was taken from the classroom individually by a researcher to a quiet spot in a nearby room or desk in a hallway and asked to read the book. Directions were given in English, unless the child did not seem to respond to English, in which case they were given in Spanish. The order of reading was chosen by the child. We asked the children to, "Read me your book." We asked them to choose which way they wanted to read the book first, "in English or in Spanish, in Spanish or in English?" The order chosen by the child was indicated on a record sheet, along with notes about non-verbal behaviors, and preliminary judgments about the features of the reading and the subcategory of the overall reading according to the Sulzby scheme. All sessions were audiotaped.

Analysis. Each tape was transcribed and translated by a trained transcriber/translator and double-checked by a different transcriber/ translator for accuracy. (These were our plans and have been carried out for all of the tapes except six in one study and the full set which was lost in moving from Northwestern. These procedures will be used with all tapes before publication.) In order to check for accuracy, tapes were audited by linguists and bilingual experts in the Chicago and Ann Arbor areas. Some tapes were fully checked as many as seven times, depending upon the

difficulty of hearing the child clearly on the tape and upon the degree of accuracy needed for given analyses.

Typed versions of the transcripts and translations were judged by two independent judges using the Sulzby classification scheme. (In the case of the lost set, two judges independently assigned scores by listening to the tapes.) Particular care was taken in the scoring of the Spanish readings. First analyses were made using the English translations of the Spanish readings. Second analyses were made using a Mexican-American linguist and the first author as judges using the original Spanish transcriptions. Agreement was high across all sets of judgments, including the preliminary judgments and final judgments from typed versions. Agreement across two judges for the Spanish versions in translation varied from *rho* = .80 to .96 and, for English, from .92 to .99. Agreement across two judges comparing judgments for the Spanish readings in translation and for those same readings in the original Spanish varied from *rho* = .86 to .90. All correlations were significant.

Preliminary Findings

Each of the three major questions will be discussed in detail after examining the results of a set of statistical analyses. These results are preliminary, given the problem with the one set of data that must be reanalyzed, thus the statistical values we report must be treated cautiously. However, the results are so firm for four of the studies, given the agreement levels with the preliminary scoring, that we feel confident in the major findings. Also, our sample size is quite large in comparison with our other work, even in the cohort comparisons.

We are also concerned about the findings of one study, Study Three, the first study for Cohort II, the bilingual preschool, because of a difficulty that we have reported previously, that of refusals of younger children (see Sulzby, 1983b). As discussed in the concluding part of the previous section, we have found that some adults react to young children, in spite of careful training, by being afraid that the child is being pressured or frustrated. These adults tend to cut short the prescribed "wait-time" and proceed to an interactive reading. We had this problem with Study Three, in particular, with an experienced researcher who had not shown this tendency with the kindergarten children. In analyzing the refusals for Study Three and debriefing the researchers, we found that almost all refusals in this study and a few others were with the one examiner who continually reported making her judgment to go into interactive reading based upon expressions on the children's faces. Thus we have reported data with her results both included and excluded.

It might be that this examiner is correct and that the procedures we are using are applying undue pressure upon young children. In examining the tapes in detail, we are convinced that this is not the case. In a number of instances in which the examiner claimed that the child was frightened and contributed little, the child can be heard trying to take over the reading and sometimes a few of them succeeded. It is clear that some few children are refusing to read when they sit quietly but most sit for a while and then begin reading. Others begin interactive reading and then, with the prompt, "It's your turn now--you read to me," or without such a prompt, begin an independent reenactment. Thus we are more convinced than ever that appropriate procedures involve allowing plenty of wait time, with the

examiner sitting with a calmly expectant look until the child begins to read or has given a clear indication that s/he is refusing. Also, in most cases, the child did read the self-selected favorite, but often with a different examiner.

The excessive refusals for Study Three have two effects statistically: inflating the longitudinal increases and deflating the estimate of stability across the two languages (the examiner accepted refusals far more readily in English than in Spanish). Hence, we have omitted Study Three from our longitudinal statistical comparisons.

The remaining longitudinal comparisons within the two cohorts were also statistically significant for each language taken separately (t (34) = 3.8, p <.0006; t (34) = 6.02, p <.0001 for Cohort I; t (12) = 2.82, p <.01; t (12) = 3.86, p <.0025; Wilcoxon comparisons were also significant at p <.001 or greater). Correlations between the Spanish and English versions differed across studies, but were all significant when zeros were omitted. For the 11/84 collection from Cohort I, the correlation was *rho* (38) = .31 but when the ten subjects who scored zero for the English reading were dropped from the analysis, the correlation became *rho* (28) = .54, p <.003. For the 5/85 collection from Cohort I, the correlation was *rho* (38) = .90, with only three zeros.

Our final comparison was between Cohort I and Cohort II. Specifically, it was between Study One, the fall collection for the 1984-85 kindergarten , and Study Five, the fall collection for the bilingual preschoolers as they advanced into the 1985-86 kindergarten. Two comparisons were made. A total of 15 children had been in one or both studies conducted in the bilingual preschool. Study Five readings for this group of children were compared with those for 15 children selected at random from Study One. Another comparison was made between "new kindergartners" from each year, using the 1985-86

kindergartners who had not taken part in bilingual preschool in comparison with an equal number of children from the 1984-85 cohort. These children were also selected at random from the total remaining in each group. No cross-sectional differences were found, in spite of the fact that one group of children had been read to in class for at least five months longer than the other children. These findings of non-significant differences held up, even when zero scores were dropped (4 repeaters and 3 new children in the English version and none in the Spanish version).

Our first major question concerned whether or not these bilingual children would show the same emergent reading behaviors as we have found with monolingual English-speaking children. Indeed, they did so. The emergent readings fit each of the sub-categories of the Sulzby classification scheme. As with the low-income Anglo children, we often had to disregard poor knowledge of semantic labels and control of syntactic structures at the sentence level but the reading attempts could be judged by the linguistic characteristics at the story or discourse level.

Our second major question concerned whether the children would show decidedly lower emergent reading behaviors in English than in Spanish or whether their behaviors would be essentially the same in both languages. As described above, the children's behaviors are significantly correlated across the two languages, especially if the unexplained refusals (zero scores) are disregarded. We feel that these findings are particularly important since the teachers and other experts with whom we consulted prior to the study were skeptical that the children would, first, listen to the stories in English and comprehend them and, second, begin to "read" in English, since their perceived control of English was so poor.

Our final major question concerned the role of the oral monologue. While the children showed the same emergent reading behaviors as had been found with monolingual English-speaking US-born children, they did indeed use the oral monologue with greater frequency than did the English-speaking children. We are still verifying our judgments about some of these samples, but over 25 children used clear, long examples of the oral monologue. Almost all of these oral monologues were in Spanish, but a few were in English, with a few children giving oral monologues in both languages on the same day with the same book.

We (Sulzby & Vazquez, in preparation) are currently classifying these oral monologues into subsets, based upon predominant linguistic features. Most of the previous samples from English-speaking monolinguals from literate homes were highly contextualized to the pictures of the book. Many of the bilingual children's oral monologues are highly specific. This high specifity in lexical choice is in contrast with Olson's (1977) claims about oral language; it appears to be, however, in line with characteristics of oral narratives elicited from children in the rural Midwest who were not being asked to read but were simply responding to oral conversational "openers" (Peterson & McCabe, 1983), with vivid nouns and verbs. The intonation patterns of many of these oral monologues are highly entertaining, with elongations and great variations of pitch. We plan to contrast these oral monologues produced as storybook reading attempts to oral monologues elicited in an oral situation in order to see whether the "oral monologue as storybook reading" is a specific subset of oral monologue or whether it is indistinguishable from other oral monologues.

We have many other analyses that may yet be applied to these transcripts, but our initial investigation of the major questions was rewarding. While the uniqueness of the children's speech is fascinating (including such constructions as "jumpo y jumpo y jumpo"), the common behaviors across languages is also compelling. The emergent literacy behaviors that we and other researchers have been investigating appear to be robust, at least in situations such as storybook reading in which the literacy environment is highly structured for the young child. One of the most robust findings, yet least "measured" other than through the eye of the observer, is the pleasure that the children display when they "read" books with which they are familiar to an appreciative adult. We turn now to adults who read to their own children, in their homes.

The San Antonio Project

As described above, the focus of the San Antonio project was to collect data on parent-child storybook reading in families of low and middle income and of both Anglo and Hispanic background. We entered into this project knowing that we were investigating a phenomenon in which social class differences have been widely reported. Yet for these groups we deliberately solicited families who reported that they read to their children and were willing to be part of a study of such reading. Teale (1984) had previously reported on the variation of storybook reading practices within socioeconomic levels; this study enabled us to address the issue of variation and commonality more thoroughly. More importantly, longitudinal data on parent-child interaction on storybook reading would address part of our central question: what do children internalize from parent-child interactions during storybook reading?

Method

Subjects

The design for the parent-child interaction phase of the study called for longitudinal studies of eight families selected according to the following factors:

Background

Income Level	Anglo	Hispanic
Middle Income	2	2
Low Income	2	2

Families were recruited by employing a variety of tactics: word-of-mouth, contacts through local elementary schools, and leaflets distributed door-to-dorr and left in libraries, supermarkets, and social service agencies. (These tactics are similar to those used to recruit children into the four-year-old preschool class in the Chicago project.) All families included in the study had preschool children and they had already established a regular practice of reading to their children. All families volunteered for inclusion. Low income families were paid $20 per month for participating; middle income families were not paid.

Full demographics on the families who remained in the study until its conclusion are included in the Appendix. The ages of the focal children (FC) at entry into the study ranged from 1;4 to 3;1 and the duration of the study ranged from 8 months to 2 years 9 months.

A note should be made about our use of the terms "low income" and "middle income." Much of the literature includes the use of such terms as "middle class" and "working class." We have made use of the general types of socioeconomic indicators for classlike distinctions, but are quite uncomfortable with the additional baggage that comes with terms such as "class," and, in particular, "working class." For that reason, we have used the more descriptive and value-neutral terms relating to income levels. In all such cases, we know that these descriptors are surrogates for clusters of behaviors that tend to be correlated. We have already violated one of those correlational clusters in our deliberate solicitation of low income families who read to their children, but one which Teale (1984) had already studied in some detail.

Family Retention

Retention of families in the research proved to be an issue of great importance in the project. Of the eight families originally recruited, four did not remain in the project for its duration and were replaced by other families. One low income Hispanic family, both low income Anglo families, and one middle income Anglo family left the project before we had the opportunity to collect as much longitudinal data on them as we needed.

These families were replaced with other families but the issue of retention needs to be discussed more fully because of its implications for longitudinal study. Discussions with other researchers who conduct long-term naturalistic studies in homes, especially when they include families from lower income levels, as well as our personal experiences with this and previous studies, have convinced us that some discussion of why families discontinue participation may be instructive to researchers conducting or contemplating long-term, naturalistic research in home settings.

Because we are concerned with the anonymity of the families in this research, we shall not tell the actual stories of the families who discontinued their participation. We were convinced that the families left for reasons that were critical to the family good, rather than from lack of interest or problems with the study per se. In order to give details that other researchers can interpret, we have elected to provide a list in which our families' circumstances are embedded. The following list contains the reasons that our families left the study, as well as reasons that other researchers have told us they lost families from their longitudinal home studies:

* Families move from one location to another
* A parent who has been at home gets a job outside the home
* The family simply disappears without telling the researcher
* A parent or other close relative is hospitalized for medical or psychological reasons
* An estranged husband returns home and does not want the family to continue participation
* An ex-husband who has been in jail is released, and the wife attempts to avoid him
* The house burns and the family cannot be located
* Unanticipated family emergencies take precedence over the research

The variety of situations that can affect naturalistic research like this study is indeed great. The problems of family retention have certainly had an impact upon our data collection patterns and even the researchers' morales. It is difficult to invest time and effort in data collection with a family only to lose them. It is even more difficult to witness the painful circumstances which affect peoples' lives and cause them to cease their participation in what they believed was an interesting and worthwhile activity involving their young children.

At the least, these experiences demonstrate that research is not divorced from the everyday circumstances of human life. They also serve to illustrate that storybook reading is one activity in the complex mesh of family life.

Procedures

A pilot study funded by a University of Texas at San Antonio Faculty Research Grant aimed at refining a research methodology for collecting data on parent-child storybook interactions had indicated that, of the two potential methods for gathering data--audiotape recording and videotape recording--audiotape recording was much less intrusive while at the same time considerably less expensive and easier to manage because of the equipment involved (Teale, 1984). Furthermore, results from the pilot study indicated that despite the fact that non-verbal interactions important to the storybook reading were not captured through audiotape recording, adequately complete transcripts could be developed to include a great deal of the non-verbal interactions through the use of a retrospective interview technique with the parent who read the book. Therefore, almost all data collected for the parent-child interaction phase of the study were gathered by audiotape recordings. Video taping of one or two storybook reading sessions was also conducted in five of the eight families in the attempt to double check on the adequacy of the audiotaped data. Comparison of the transcripts from the audiotaped sessions with those from the videotaped once again revealed that the audio taped data were adequate for the analyses that were being performed.

A small (approximately 4" x 6" x 1"), battery operated, standard cassette recorder was left with each family. The instructions given were that the parent should record an entire storybook reading session, no matter whether it lasted for one book, ten books, or half a book, and that the parent should conduct the storybook reading in the same way as readings are usually conducted. As soon as practicable after the session had been recorded, the parent telephoned the researcher who was working with the family to set up

an appointment to review the tapeas soon after the reading as possible. At the appointed time, the researcher and parent listened to the tape together, with the researcher attempting to determine what non-verbal behaviors (e.g., pointing, eye gaze) were occurring; to decipher, with the parent's or child's help, any unintelligible remarks; and to interpret correctly any other verbal behavior (e.g., laughing, 'sound effects'). In this manner as complete a transcript of the event as possible was developed using insider knowledge from at least one of the participants in the event. The transcripts were then used for conducting analyses.

The books read by the family were, for the most part, books which they themselves had, either because they owned them, or had taken them out of the public library, or borrowed them from friends. These books are classified by type in the results section.

In addition to witnessing the books which the families would choose to read to their children, we wished to conduct some comparative analyses across families, especially to discover more about the possible different ways in which the same book might be read in different families. Therefore, *Are You My Mother?* (which was also used in most of the Chicago studies) was given to all the participating families and they were asked to include it as one the books they read. For most families *Are You My Mother?* became part of the regular repertoire of books and was read repeatedly.

Analysis

The primary analyses that have been conducted thus are (1) descriptive analyses of the final versions of transcripts (after parents participated in verifying the events and providing contextual information)

and (2) scoring transcripts according to the Sulzby classification scheme. We present an overview of the findings to date in the sections that follow.

Findings From San Antonio Family Studies

From our study of parents reading to their children, we were able to draw a number of descriptive findings. These are organized around the following six generalizations, each of which is presented in detail below. Following presentation and discussion of these generalizations, we present descriptive data on the books read in family storybook reading and findings from a comparison of the children selected for longitudinal study in the family setting with a sample of similar but non-selected children.

Overview of Generalizations

1. Storybook reading is an integral part of family life
2. Storybook reading is a socially constructed activity
3. Storybooks change over time
4. Storybook reading interaction becomes internalized as children read the same book repeatedly
5. Variation in language and social interaction is a characteristic of storybook reading
6. Children spontaneously engage in storybook reenactments

Storybook Reading Is an Integral Part of Family LIfe

This first finding may seem rather axiomatic given the fact that families who were recruited into the study had already established a practice of reading to their children. But it seems important to stress the fact that the

parents in the families did read to their children. Moreover, we found that storybook reading was a normal part of family routines. Children expected and demanded to be read to; parents offered to read and treated reading as if it were one of the things one does with children. Readings were used as comforts, as part of play, and as ritual. In particular, the "bedtime reading" functioned as a ritual marking the end of the day and closeness with family as children get ready to sleep. (One of our future analyses of the data is aimed at a more detailed description of the "bedtime story" as it relates to non-interactive reading of full stories as children grow older, based upon our growing hypothesis that purposes of quieting and settling down may interactive with active dialogue about the books in this particular ritual as children grow older.)

The way in which storybook reading was seen to function as an integral part of family lifein reinforced our preliminary conclusion that reading to children is a cultural practice. Storybook reading to children appears to have evolved culturally, from points in which a given culture had no such written documents to points in which reading these kinds of documents to children has a privileged status. Such cultural evalution is part of the "literacy culture" in its broader definition. Second, storybook reading as we observed it has become a recurrent, goal-directed activity constructed and maintained by particular groups of human beings (Teale & Sulzby, in press).

Storybook Reading Is a Socially Constructed Activity

The storybook readings we observed had three participants: (1) the text, (2) the adult, and (3) the child or children. The participants each

contributed to the reading, the result being that storybook readings could best be described as socially created activities. The readings were not merely the adult delivering the printed text in an oral form to the child. Rather, the words of the author were surrounded by discussion and questions about, as well as commentary on, the text. The language and social interaction that surrounded the text were as much a part of storybook reading as was the book itself. This characteristic was present in storybook readings with every family, with every age child, and with every type of text.

To illustrate this point we present three examples of different texts being read by different familes to children of varying ages:

Example 1: **Patrick** (age 3;7) and **Mother** reading the storybook,*The Winnie-the-Pooh Book*. [Middle Income Hispanic family]

Mother: "The Winnie-the-Pooh Book.

Winnie-the-Pooh lives in a house in the forest."

See, he lives inside of this tree here. (Points to the picture of the tree on page 3.)

Patrick: But, but his (this) is so little. (referring to the tree.)

M: Yep, because he crawls into it. That's why it's little. He's not great big.

[M turns the page.]

"Here is Pooh Bear with his friend Christopher Robin.

They are reading a funny story."

See his name is Christopher. (M points to the little boy on page 5.)

P: Uh-hum.

M: And he's reading the book too, Winnie the Pooh-also, just like mommy's reading to you.

P: Uh-huh.

M: [Turns the page.]

"Shy Piglet is afraid of his own shadow!"

See, (points to the picture of the shadow on page 6) that's the piglet's shadow and he's scared of it.

He's probably wondering who's following him.

(Laughs.)

Have you ever seen your shadow?

P: Ha..., his shadow is nice.

M: His shadow is nice, but, but piglet is real shy.

He, he doesn't like to talk to people all the time and when people talk to him, he kinda goes away because he's scared to talk to people.

He's shy.

Are you shy?

P: Um-hum.

M: No you're not. (Turns the page.)

Example 2: **Shelly** (age 1;7) and **Father** reading storybook.

Are You My Mother? [Low Income Anglo family]

Father: "Just then the baby bird saw a big thing. This must be his mother.

'There she is,' he said. 'There is my mother.'"

Shelly: Wh..., what's the mother doing?

F: Is that his mother?

S: No.

F: No.

S: Not his mother.

Wh..., what's his mother doing in there?

F: (laughs) That's not a mother.

That's just makin' smoke.

Spittin' fire.

Got a big ol' engine.

S: Where's mother go, where's his mother go?

F: Where did his mother go?

S: Find some food.

F: To get some food, yeah.

S: Why?

F: 'Cause he knew the baby bird would be hungry.

Excerpt 3: **Hannah** (age 2;2) and **Mother** reading label book,

Baby Animals [Middle Income Anglo family]

Mother: [turning page] "Kittens are baby cats."

Hannah: Tha..., that's the mommy cat?

M: The mommy is the cat; the babies are the kittens.

Can you say kittens?

H: Kittens.

M: That's right.

Kittens.

H: It's...up here. (pointing to the back and tail of a kitten that can be seen over the back of the basket in the picture)

M: Is that..., that's the back end of a baby kitten, isn't it?

And there's his ear sticking up.

See?

Is that his ear?

H: [nods]

M: What's he playing in?

H: In yarn.

M: Is he playing in the yarn basket?

H: Yes.

See? (laughing)

Excerpt 4: **Juanita** (age 2;10) and **Mother** reading expository text, *Nieve.* [Middle Income Hispanic family]

[translated from original reading in Spanish]

Mother: "It is winter."

Juanita: It is winter.

M: "There is a lot of snow."

J: There is a lot of snow.

M: "We throw balls of..."

J: "Snow!"

M: "Snow. The snow is..."

J: "Cold!"

M: "Cold."

Uh-huh.

"The gloves keep my hands warm. I wear clothes that help keep in body heat. Our sled glides quickly over the slope. The sled runners slide on the snow"

What are the little boys wearing?

J: These. (pointing to the gloves in the picture)

M: What are these called?

J: They are called [mumbles something indecipherable].

M: What?

J: [mumbles again]

M: They are called what?

J: Ummmm...they are cats. (cats/gatos; gloves/guantes)

M: Gloves. (Guantes.)

J: I said that it is a cat.

M: You said cat but, it's not.

J: (giggling) I said cats.

M: I know.

J: These are cats. (giggling more)

Several decades of correlational research (e.g., Burroughs, 1972; Feitelson & Goldstein, 1986; Irwin, 1960; Wells, 1985), case studies (e.g., Cochran-Smith, 1984; Durkin, 1966; Snow & Goldfield, 1982), and a recent experimental study (Feitelson, Kita & Goldstein, 1986) indicate that storybook reading positively affects children's subsequent literacy development. The finding that storybook

reading is socially created helps us get a better grip on what is needed to understand how storybook reading has its effects. The attempt to unravel the activity of storybook reading must attend to each of the participants: the text, the adult, and the child.

Our analyses of the role that the **text** plays in the readings we have observed is still underway, but a few trends are already becoming clear. Parents read a variety of types of books to children (see section on the books which were read in family storybook reading, below). Examination of these texts reveals different demands on the child participant, and examination of the readings of types of texts indicates that there seem to be characteristic patterns of reading interaction associated with different types of texts. For example, we have found the pattern (1) attentional vocative, (2) query, (3) labelling of picture, (4) evaluation and/or feedback described by Ninio & Bruner (1978) in their seminal case study of storybook reading interactions to be characteristic only of readings of Label books, ABC books, and Counting books, but not when Stories or Expository books (which together constituted approximately 3/4 of the books read to children) were read. With Label and ABC books we have also found that there is proportionally greater joint parent-child attention to the print in the text (especially when the child is 3 or younger) than there is with the other types of texts. Thus, in addition to being a factor in determining the content of the activity, the text affects the nature of the parent-child interaction as well as the degree and type of attention to such factors as the code (letters, sounds, and the relations between them) itself.

Of course, the **child** and the **adult** affect the nature of the language and social interaction of storybook reading. As the child becomes older, general background knowledge, language use, knowledge of the nature of the activity of

storybook reading itself, knowledge of text structure (e.g., story grammar), and even specific knowledge about the particular story being read all grow. Such changes affect the language and social interaction of individual reading episodes. The existence of differences in the ways in which parents read to children is by now well-documented (see, e.g., Heath, 1984, 1986; Teale & Sulzby, in press), and the differences are a central focus of this study that will be discussed below. It is sufficient to say at this point that adults display characteristic patterns of reading books to children and that there are variations in the way in which they mediate a text when reading aloud to children. Clearly, then, the adult contributes to the nature of the storybook reading.

The complex interaction among the three participants in this socially constructed event -- the text, the adult, the child(ren) -- becomes evident as we consider findings about other key characteristics of storybook reading: change over time, internalization, and variation.

Storybook Readings Change Over Time.

It is particularly interesting to discuss the observed storybook reading changes over time in terms of two factors: (1) age and (2) familiarity with the text being read. Let us consider age first. Storybook reading for the one-year-old is describably different from the storybook reading for the three- or four-year-old. One type of difference according to age present in our data relates to the type of text being read. Alphabet books, label books, and counting books were more often read to younger children. As children got older, the use of these books decreased proportionally , with storybooks and, in the case of two

families especially, expository (informational) books becoming more predominant.

The other age-related difference relates to the language and social interactional characteristics of the storybook readings themselves. Heath (1982) found among the families in the Maintown (mainstream) and Roadville (low income white) communities, the dialogic character of readings with young children gave way at around age three to a pattern in which the children were encouraged to wait as an audience by active discouragement by the parents during the parent's reading and were expected and encouraged to answer, on cue, questions that were posed to them. As was just mentioned, we believe that type of text is associated with changes in language and social interaction, so it is not clear to what degree Heath's findings were the result of the fact that children were being read different kinds of books at age three than at age one versus the fact that the children were three as opposed to one year old. Our study included four children during the age span at which Heath had reported the shift to the listen-and-then-answer-questions (LATAQ) style. (The children included three only-children [Juanita (middle class Hispanic), Patrick (middle income Hispanic), Hannah (middle income Anglo)] and a fourth child [Catherine (middle income Anglo)] who was frequently read to alone.) We were interested to see if a phenomenon similar to the one Heath described would hold for these children as well. (Families in which three-year-olds were read to in conjunction with younger siblings were not considered because of the confounding factors of having younger children involved in the interaction.)

Our case studies indicated that this LATAQ style did not apply to Label, ABC, Nursery Rhyme, Counting, or even Expository books with older children, but

that there was a greater tendency for this to occur with Stories (again suggesting that text is an important factor in the nature of storybook readings).

Furthermore, 3 of the 4 children (Patrick, Hannah, and Catherine) tended to listen to long stretches of a story without interrupting. On the other hand, Juanita and her mother's story readings were quite dialogic in nature, for the most part. However, even in the story readings of Patrick, Hannah, and Catherine, we could find little evidence of the parents' actively 'encouraging' the children to wait as an audience. Whenever they occurred, parents answered children's questions and responded to their comments rather than discouraging interruptions. In fact, one child, Hannah, entered at a young enough age (1;9) and stayed in the study long enough (until she was 4;6) to be able to observe that period of change that Heath has described. As Hannah's story readings are observed over time there is a clear pattern of their becoming less dialogic. She listened to greater stretches of the story at a time. The mother's comment on this phenomenon was particularly interesting. When Hannah was 3;7, the researcher went to the home to conduct an interview of a reading session just completed. The mother commented to the researcher that he would find this a dull tape. When asked why, the mother commented that "all Hannah does is just listen. There's not much going on." The mother herself seemed surprised when she had relistened to the tape, realizing that there was not as much dialogic interaction as had been typical of their readings. This trend continued until data collection was ceased. There is one occasion upon which *Are You My Mother?* was read straight through without one interruption. An interesting finding is that the mother did not feel that she had promoted this type of reading; it simply emerged out of the interaction between the two of them.

Thus, our case studies would indicate that there may well be something to the shift in interactional patterns that Heath describes, when one considers the reading of stories (but not other categories of children's books). Even within storybooks, however, our observations suggest that the degree of the pervasiveness and the causes of the shift remain unclear. This seemingly age-related change in the social interaction of storybook reading deserves closer attention. (Notice also that our own findings appear to break down along an income level difference, but this cannot be determined due to the presence of other children in the reading sessions for the low income children.)

The other major factor associated with storybook reading changes over time, familiarity with the text being read, has been examined more closely in this study. We found that repeated readings of the same text by the same participants never came out the same way. In a sense the text itself changed over time as the participants jointly became more familiar with it, as the child or children gained more worldly experience and linguistic facility, and even as the emotional or physical states of the participants changed from reading to reading. This finding of change over time for repeated readings of the same text ties in with our next major finding, that with repeated readings there was internalization of the reading process by the child. Therefore, we shall examine this issues more closely in the next section.

Storybook Reading Interaction Becomes Internalized as Children Are Read the Same Book Repeatedly.

This change can profitably be described in terms of Vygotsky's notion of the shift from interpsychological to intrapsychological functioning, viz., that cognition is internalized social interaction (Vygotsky, 1878, 1981). In Teale

(1986) and Teale and Sulzby (in press) we have illustrated how such a shift occurred by examining Hannah and her mother's repeated readings of *A Golden Sturdy Book of Counting* (Federico, 1969). As the four mother-child readings (collected over an 11-month period) were examined, characteristic patterns in the mother's mediation of the book were identified. The first reading, gathered when Hannah was 1;8, was characterized by the dialogic interaction pattern described by Ninio and Bruner (1978). Analysis of a second transcript when Hannah was 1;11 revealed that, although the interaction pattern was essentially the same, the child accomplished much more of the "reading" by herself. In the third reading, dated two months later, Hannah accomplished the labeling of the pictures much more independently and spent considerable effort at the outset of the reading attempting to reverse roles with her mother and ask the questions herself, thereby exhibiting more control over the activity. When Hannah was 2;4 she spontaneously reenacted (Sulzby, 1985) the *Counting* book, using her new doll Judy as the audience, and her mother tape recorded the event. The transcript of this independent reenactment of the *Counting* book revealed that the language and social interaction of the mother-child storybook reading had become internalized to the point that Hannah was able to conduct the activity independently. Hannah had reproduced not the text of the book itself but the "text" that was created by her mother and herself in the actual storybook readings. A final interactive reading of the book took place when Hannah was 2;7. Hannah was able to do by herself what previously had been a joint mother-child accomplishment. But on this reading the mother did another interesting thing: she 'raised the ante' by getting Hannah not only to label and count the items in the book (as they had always done previously) but also to discuss certain characteristics of the objects (e.g., color, sounds they make), to examine

synonyms for the words, and to link certain items in the text to her own personal experiences and family members. In this manner new features became part of the interaction, features which, in turn, would be incorporated into Hannah's independent functioning. Mother and child engaged in a mutually constitutive process, and what they did in interaction strongly affected the child's strategies for, and attitudes toward, dealing with the *Counting* book in particular and book in general.

We have extended this type of analysis over a wider range of books read by the families in this study. There is a considerable amount of data from the hundreds of storybook reading that have been transcribed, and the findings that we discuss in the remainder of this section that, while they do not reflect a point-by-point analysis of each individual transcript, are patterns that have emerged across the families. More fine-grained anaylses will follow in subsequent publications.

The picture that emerges across the storybook readings is consistent with Vygotsky's notion of a shift from interpsychological to intra-psychological functioning. Bruner (1975) first used the term *scaffold* to characterize the way in which adults interact with children to help them learn oral language. The parent "support(s) the child in achieving an intended outcome, entering only to assist or 'scaffold' the interaction" (Bruner, 1975, p. 12). The parent's scaffolding enables the child to participate in the event and thereby learn from it. A similar phenomenon characterizes parent-child storybook readings. The intention is to read the book. Initially the child cannot possibly read the book by himself or herself. The parent does what is necessary to help the child get through the book. As was discussed above, this includes not merely rendering the words of the text aloud, but also surrounding the text with

discussion about the book. In fact, it sometimes means that the words of the text are deliberately not read exactly as they are printed. Parents leave out parts of the text or modify the language to conform to what they feel will be most suitable to the child. For example, when Don, the father, read Patrick (3;4) *Are You My Mother?*, he skipped over 12 pages so that Patrick would not get "anxious or bored."

The parent who is a sensitive scaffolder is good at negotiating what Vygotsky has termed the "zone of proximal development," the difference between what the child is capable of doing independently and what the child can accomplish in interaction with a more experienced person. It should be remembered that to be effective this scaffolding is not a permanent fixture but a kind of shifting support that slackens, changes, and eventually "self-destructs" (Cazden, 1979) as the child learns more and more about how to do the task alone. Often the progressive internalization of a storybook to the point where the child is capable of an independent reenactment takes days, weeks, or even months. Sometimes it can be observed within the space of a single reading.

Variation in Language and Social Interaction Is a Characteristic of Storybook Reading

It is clear from this research and from other studies of storybook reading in home settings (e.g., Crago & Crago, 1983; Heath, 1982) and in classrooms (e.g., Green & Harker, 1982; Teale, Martinez, & Glass, in press) that there is considerable variation in the ways in which adults read storybooks even when settings and the books being read are comparable. Studies by Ninio (1980) and Heath (1982) suggest, furthermore, that some forms of reading to children may have more positive effects on children's vocabulary development and school

achievement than do others. One of the reasons for including both lower and middle income families, as well as Anglo and Hispanic families, was to see if any characteristic patterns of mediating books for young children could be associated with socioeconomic factors or cultural background. It was found, however, that differences among families could not be accounted for simply in terms of income level, cultural background, or language use in the family. Rather, a more complicated pattern emerged, showing that individual differences were in style of interaction were products of a number of factors in the family and personality of the individuals involved. In general there was as much variation within ethnic group as between it. The presence or absence of differences across income levels is more difficult to determine since, due to problems with subject retention discussed earlier, we have less longitudinal data on the lower income families.

Negotiating the child's zone of proximal development, or scaffolding the storybook reading interaction, is not a natural or by any means universal skill that all adults have. As we have pointed out in a previous paper (Teale & Sulzby, in press), and as the transcripts from this study show, some parents are better than others at 'tuning in' to the child's intentions, knowledge, and interactional patterns. We have evidence that the way in which the adult mediates the texts for the child affects the child's independent functioning with the text. However, except in these quite general terms, there is no evidence that any one particular strategy has greater results on a child's ultimate reading achievement in school than any other.

Children Spontaneously Engage in Storybook Reenactments

Parents reported that all of the children in the study engaged in independent reenactments of books. That is, they spontaneously picked up books that had been read to them and "pretend-read" the books, either to adults, to dolls, or to themselves. Mothers of three of the children (Juanita, middle income Hispanic; Hannah, middle income Anglo; and Catherine, middle income Anglo) captured at least one independent reenactment on audiotape. In order to insure that the parents' definitions of independent reenactments were the same as ours, we elicited independent reenactments from the remaining five children in the sample, following techniques described in Sulzby (1983, 1985). None of the children refused to read and their scores on the Sulzby classification scheme ranged from 2 (Following the Action) to 7 (Reading Verbatim-Like).

These results provide some support to the idea that independent reenactments are quite common among children who are read to regularly as has been reported retrospectively by other parents as well (see, for instance, Robinson & Sulzby, 1983). This finding is particularly important, given the premise of our study, that children will internalize the patterns of storybook reading from being read to. From the interactive data, we have the means of examining the language that parents support in active "scaffolding." In the independent reenactments, we have the means of examining what the children have internalized sufficiently to use when the parents are not active participants.

Since we were studying these children in their homes, however, it is possible that we affected the kinds of behaviors that the parents encouraged and that the children internalized. In order to check for this kind of effect, we

decided to examine directly the issue of whether our focal children somehow became different as a result of being part of the study.

Comparison of Focal Children With Non-Studied Children

In order to examine the generalizability of the reading behaviors we saw in our focal children in independent reenactments, we planned to elicit storybook reading attempts from 24 children beyond the original 8 focal children (6 each in the 4 cells of low and middle income and Anglo and Mexican-American). Locating children to fill the low income cells proved problematic. We were able to obtain the cooperation of 6 children each for the middle income groups, but only 3 low income Anglo children and 4 low income Hispanic children. Thus our total comparison group was 19 children. All of the children were in the same age range as that of the 8 focal children. Eleven of these 19 children were drawn from families who had expressed interest in participating in the longitudinal study but were not selected. The remaining 8 families whose children we asked to read were recruited using procedures similar to those used originally.

Two independent reenactments were elicited from each child in sessions conducted in the children's homes. The first was a favorite book from the child's own collection. The second, *Are you my mother?* was left with the families when the first reenactment was elicited. Parents were asked to call the researcher after they had read the book to the child at least three times (this required between one and two weeks, for these families--an indication that storybook reading was a well-established routine in these families as well). The researcher returned promptly after the parent's call and collected the reenactment of the second book.

In both the initial collection and the follow-up collection, these children were eager to take part in an independent reenactment; that is, they agreed readily to "read" to an adult from outside the family. The actual reading results indicate, first, that the samples of the focal children and of the larger sample could all be analyzed easily by the Sulzby classification scheme. Second, the distributions indicate that the larger sample mirrors the performance of the 8 focal children: none of the children refused to read, with scores for independent reenactments ranging from 1 (Labelling and Commenting) to 7 (Reading Verbatim-Like), as compared with a range from 2-7 for the focal children.

Nearing the end of the project, we had hoped to conduct a study that would carry this comparison further. We were not able to do so, but we think the following study is a logical next step that we intend to carry out as soon as possible. As described in the interim report (Sulzby & Teale, 1986), we planned to locate children from each of the income cells who had been read to regularly by their parents and children who had not. Then, in a laboratory setting, we would read books repeatedly to the children at one week intervals, asking for an independent reenactment each week after a book had been read. Differences between read-to and not-read-to children should help us separate the longitudinal nature of being read to from the individual incidence of repeated readings, a step which would be particularly helpful at this point.

Books Read in Family Storybook Reading

From the family storybook readings, a sample of 224 books were selected and categorized. As can be seen, while 64.7% of these were storybooks, the remainder were not. The following eight categories captured this set of books

read in the reading sessions which parents, relatives, friends--even the children themselves--provided for children.

(a) Story - the book has a clear episodic structure, using most of the categories of a story grammar (Stein & Glenn, 1979).

(b) Label - the book contains pictures with a word, phrase, or sentence or two identifying the picture or describing the action in the picture.

(c) Expository - the book presents organized information on a topic that does more extensive than simple labelling or description.

(d) ABC - the book focuses upon the alphabet letters, with pictures, labels, rhymes, or descriptions about the letters and/or their sounds.

(e) Counting - similar to the ABC book, the counting book focuses upon numerals, along with pictures, labels, rhymes, or descriptions. Pictures may illustrate multiple representations of numerical concepts, but the order will be in counting order.

(f) Nursery Rhymes - these books present nursery rhymes with traditional or non-traditional wording and pictures.

(g) Religious - these books have religious motifs and purposes. (In this study, the examples were from Christian literature; examples included Doubleday Illustrated Children's Bible; What Did God Make?; My Little Book of Prayers.)

(h) Miscellaneous - this was our category for books that fit in none of the other categories, such as Never Talk to Strangers; What Am I?; Did You Ever Pet a Care Bear?

This category system provides a first step in separating the parent-child interaction according to the type of text being read. In the following table, we show the numbers and percentages of the 224 books according to this categorization system. We intend to extend this analysis to the entire collection of identifiable books and to break the categorization down by other categories such as age of the child.

	Number of Books	Percentage
Story	145	64.7%
Label	28	12.5%
Expository	22	9.8%
ABC	9	4.0%
Nursery Rhymes	5	2.2%
Counting	4	1.8%
Religious	3	1.3%
Miscellaneous	8	3.6%

Since this was a study in which Anglo and Hispanic families were compared, we analyzed the books further according to whether the book was written in English or in Spanish. Additionally, since Spanish-speaking parents whom we had observed in the past would "read" by translating books from one language to another, we examined the data for the presence of these shifts as well. The following table shows the data for the Hispanic families. Only the Corona (MI) family read only English texts and read them only in English. The Trevino family and Garcia family were consistent in reading English texts only in English and Spanish texts in Spanish. Note the Ramos (MI) family in which all of the readings were in Spanish, but only 27% of the books were in Spanish. We were expecting a higher percentage of such Spanish from English reading style, but were surprised by the high percentage (73%) of the English-text books that this family committed to reading only in Spanish read to their daughter.

Percentage of English Language Versus Spanish Language Books Read By Hispanic Families

Families	Text English Read in English	Text English Read in Spanish	Text Spanish Read in Spanish	Parallel Text Read in Both Languages
Corona (MIH)	100%	--	--	--
Ramos (MIH)	--	73	27	--
Trevino (LIH)	79	--	13	8
Garcia (LIH)	86	--	14	--

We had suspected that we might see more of the pattern shown by the Ramos family, that of using books written in English, but translating those books into Spanish while reading to the child. Both investigators had witnessed this phenomenon in such sites as doctors' offices and other public spots in the USA. A toddler will approach a parent who speaks another language with one of the English text storybooks provided in the office and the parent will "read" the book in the parent's first language.

We had also witnessed this phenomenon in the preschool and kindergarten classrooms in the Chicago study on the part of both teachers and children. Books in these classrooms varied in a number of ways, if we take "book" to indicate the text independent of the language of printing: (1) books printed only in English; (2) books printed only in Spanish (these were extremely rare); (3) books printed in both languages, but as two separate books; and (4) books printed in both languages, as "parallel texts."

In these classrooms, prior to our study, teachers had tended to read both books printed in English and books printed as parallel texts in similar ways. They might translate the entire book, on the spot, to Spanish. They might read short phrases in English and do an immediate translation of those sections into Spanish, continuing this cycle through the book. In these ways of reading to the children, children were exposed to snatches in which the teacher's wording and intonation were written language-like and others in which it was oral language-like. Also, in the English/Spanish (or Spanish/English) cyclical manner of reading, teachers complained that the children were not listening to entire stories, in the manner that they would if the story was read straight through.

In preparing to conduct our classroom studies, we had observed in the classrooms and had piloted eliciting storybook reenactments from the children using books available in the classrooms. We found that these children would read in Spanish from English texts and vice versa. A few children used a "translating" behavior, such as muttering with their face toward the text in Spanish, then looking up and addressing short phrases in English to the adult. One child even prefaced the English snippets with, "It says," and then giving her version of the particular section of text.

Parents and children in our Chicago study were new immigrants from Mexico and were not proficient in English. The parents and children in our San Antonio study were born in the USA and were far more proficient in English and, with the exception of the Ramos' family, had decided to use English in their family storybook reading. For three of the San Antonio families, we gained a picture of text-language fit; for the fourth, we gained a picture of text-language difference.

It might appear that in this family, the Ramos family, the parents had made a choice that would deprive their daughter, Juanita, of the opportunity for making letter-sound correspondence matches and word matches in a large number of texts read in front of her (73% of the sampled texts were English but read in Spanish). Recall also that Juanita was the only child who maintained a dialogic form of storybook reading in single child-parent storybook readings. This might be due to the linguistic cues of the parents in translating on-the-spot from English to Spanish. We intend to examine the tapes and transcripts for Juanita in greater detail, attending to the language in which the books were printed, the parents' intonation and match with the print, and Juanita's interactions.

Data of the sort described above appear to be extremely promising to enable us to delve into the relationships between oral and written language from a number of new angles. We have data on (1) parents' choices of reading language in relation to the language printed in the text; (2) parents' intonation and wording patterns in reading printed text, translating from printed text, speaking about text, speaking about other topics related or not related to text; (3) teachers' choice of reading/speaking language patterns; and (4) children's usages in both naturalistic (family studies and some classroom observations) and elicited settings.

An additional area that emerged from our study as being important is the availability of books in both languages. Books may be composed in one language and then translated, in which cases such features as cultural relevance and fidelity of translation are important. If books are not available in both languages, we need to understand more about the reasons for a parent, teacher, or child to "translate" it during reading into the other language. We also need to know what the implications of this on-the-spot translation style are for the child's emergence into conventional literacy.

Conclusions

We have discussed many of our findings in the previous sections. In this section, we return to major findings, to issues concerning research techniques in early language and literacy research, and to implications for further research.

Major Findings

Analysis of previous data. In our analysis of the data from a previous project funded by the Spencer Foundation (Sulzby, 1983b), we have demonstrated that the Sulzby Classification Scheme can be used to train research assistants to make reliable judgments about the nature of children's emergent reading of storybooks that have been read to them repeatedly. Additionally, adults who have not been trained to make the distinctions nevertheless can hear the difference between oral and written intonational patterns in samples of children's speech masked so that the words themselves cannot be heard. These judgments were made using samples which had been collected as emergent storybook readings and judged by trained judges as exemplifying the "reading intonation" and "storytelling intonation" categories. These findings provide external verification of the psychological validity of the intonational distinction.

From our research attempts thus far with digitalized speech and computer aided analyses, as well as with investigations into computer developments of speech to digitalized text with children (Sulzby, Johnston, Olson, & Berger, in progress), we are convinced that additional research and development are needed in this area. We are not proposing that the

significant aspect of the speech signal is intonation (cf. Cutler & Ladd, 1983) nor that we can understand emergent literacy phenomena by separating form from meaning. Indeed not! However, verification that the intonational signal exists and can be detected independently of oral or written language-like wording is extremely important. From our use of subjective notational systems and conferring with experts in notational systems, we are aware that such systems are too dependent upon the variability of individual linguists. Yet, from these analyses, the suggestion that jointly-produced tone units exist in parent-child interaction in storybook readings is a potentially valuable clue about the sociolinguistic base for children's later independent reenactments.

From these analyses and from the findings of the current project, we feel that we have further evidence to question the notion of emergent literacy as being a transition from oral to written language. Rather, we support more strongly than before the characterization of children as discovering the interrelationships between oral and written language within their culture (Sulzby, 1986c) during the period from birth to the time when they are conventionally literate.

The Chicago Project

Low and middle income comparisons. The series of studies that contrasted low and middle income children's emergent storybook reading produced evidence that both groups of children show the same kinds of storybook reading behavior when they have been read to. Additionally, the structure of the children's speech could be identified even when children's pronunciation was immature or when their syntactic proficiency was below that expected for their age. The sub-categories of the Sulzby Classification

Scheme were used to distinguish between ability groups as reliably as other measures used by school systems.

In our consultation with teachers that accompanied the formal studies, we found that kindergarten teachers were able to make judgments using a simplified form of the scheme. We speculate that, by using this scheme, teachers will be able to make more precise judgments about children's so-called "readiness" for instruction than they currently make by use of informal judgments of children's "oral language proficiency." Additionally, they will have evidence that such children already have knowledge about literacy and are already literate to some extent.

Spanish-English emergent readings. These studies are particularly significant because, to our knowledge, they are the first time that a large group of newly-immigrated children have been asked to display their emergent literacy across two languages. Yet these children read the books, using reenactments that fit the Sulzby Classification Scheme. Most of these reenactments were full text discourse in which stories were formed, rather than simple labelling and commenting. The latter would have been predicted for English according to the kind of instruction they were receiving and was, in fact, predicted by the teachers who were doubtful that the children would even listen to entire books, let alone try to read them in English.

These findings suggest that, in instruction, we are bypassing a potential strength of second language learners, the ability to respond to and learn from well-formed favorite storybooks of the sort that have been used in bedtime storybook reading rituals. They further suggest that, in language development research, techniques that examine specific syntactic or lexical usages need to focus upon those structures from within discourse-level

frameworks and not just at the sentence level. From the general book reading behavior of the children, we have concluded that even children without a strongly literate background make distinctions between oral and written features of speech heard orally and are able to product speech themselves that signals differences between oral and written language features.

The existence of the oral monologue within the repertoires of these children is a potentially important finding. Sulzby (1985a, in press) had argued against a strict stage model of literacy development and had predicted cultural differences based upon the oral/written language relationships of the child's literacy culture. She has suggested that, even though the classification scheme she had presented for storybooks appeared to be linear and hierarchical, that was an illusion formed by the organization of oral and written language relationships within the mainstream US culture that children were reared in. (In contrast, writing development within mainstream US culture does not appear to be linear or hierarchical.) The children in these studies, whose backgrounds included a much stronger oral tradition, produced very full oral monologues at a greater frequency than those found in the US studies of English-speaking monolinguals.

Studies of family storybook reading. In spite of the difficulty of low-income families remaining in a longitudinal study, we were able to share storybook reading events with over eight families for a long period of time, during which we drew a number of important generalizations, restated here:

1. Storybook reading is an integral part of family life
2. Storybook reading is a socially constructed activity
3. Storybooks change over time
4. Storybook reading interaction becomes internalized as children

read the same book repeatedly

5. Variation in language and social interaction is a characteristic of storybook reading

6. Children spontaneously engage in storybook reenactments

An emphasis upon the first generalization is important before we move into discussing the nature of the storybook reading behavior that children internalize. Families appear to read storybooks as a more general part of family life, not as an attempt to teach their children to read. Or, even if they believe strongly that it will affect their child's later reading ability, they do not appear to want to use the time of storybook reading for skills teaching, particularly not in the early years. One of the authors (Sulzby) was recently asked to keep track of the books read to her child at home for end-of-year reading awards in kindergarten; she was shocked by her own negative response to this request. She did not want to allow the "outside world" to intrude on storybook reading time with her daughter. Ironically, we had made an intrusive request to these families; while they shared their experiences with us, they nevertheless displayed evidence that the central focus was on a parent-child-book closeness, not upon "teaching lessons."

Having established that caution, we turn to the other generalizations. We are convinced that, for the child, the storybook is not the physical object, but is a socially constructed object. This object includes the interactive language which surrounds and is part of storybook reading. This language is part of social interaction between the three participants: the adult, the child, and the book (as a socially constructed object). The language changes over time and shows the variability that is part of all of language use; at various points, it shows different patterns of shifting from oral and written patterns.

Overall, we found that children appear to internalize many of the patterns described in the Sulzby Classification Scheme. The process does not appear to be a simple one of imitation but one of abstraction and construction.

Our final finding emerged from the family study but was verified by a more formal study in which a larger group of children were all asked to reenact *Are You My Mother?* The children in the family study engaged in spontaneous "emergent storybook readings" or storybook reenactments. Additionally, they and a wider selection of children who were not part of the family study also gave storybook reenactments that fit the classification scheme. Thus we appear to have evidence that low and middle income children of Hispanic and Anglo backgrounds engage in storybook reenactments quite readily if they have been read to repeatedly. It should be noted that, in the case of the focal children we know that they were read to habitually; in the case of the wider sample, we know that these families had at least enough interest in storybook reading to volunteer to work with the researchers. Putting this evidence together with the Chicago data from newly-immigrated children of Mexican heritage, we have accumulated converging evidence of the robustness of emergent storybook reading behavior.

We were not able to add the experimental study of children who have not been read to habitually that we described in our 1986 interim report. This is definitely a study that needs to be done.

The new data that we have collected from this study are rich and will provide the basis for much more analysis. We have found that children internalize story reading structures from their interactions with parents, yet we have found much variability in the family interactions. One set of analyses

which we intend to complete soon is a comparison of the story structures and the sentence-level syntactical and lexical choices between the parent-child speech and the child's later reenactments. Then we will compare these elements across the focal children and the extended sample for each of the four cells of our design.

Issues in Research Techniques

Transcription and translation techniques. It is well known to child language researchers that we can never obtain "perfect" transcriptions, yet we believe that it is important to (1) be as accurate as possible initially and (2) describe the degree of accuracy used for a given analysis. In the current project, as in others we have conducted, we have taken great care to include a description of our transcription techniques as well as our analysis techniques. In child language development research, we need confidence that the raw data we are using are as dependable as the categories or scores that we use for analysis. In this project, however, we learned some of the legitimate shortcuts that we could take with transcriptions for particular levels of analysis. Our goal is to have all the transcriptions and translations completed to the same degree of accuracy, as mentioned in the introduction.

This was the first time we had used translations. Each translation was checked at least two times and some were checked by as many as six qualified translators. The translators included Spanish majors who were native-born Mexicans or Mexican Americans; Spanish-speaking linguistics and education graduate students; and Spanish-speaking bilingual specialists. The storybook classification scheme was applied to the transcripts in English translation and

in the original Spanish; the scheme was applied with equal accuracy across these two analysis conditions.

Many journals do not allow sufficient space for full description of how linguistic data are obtained and analyzed. Sometimes reviewers are able to serve the function of certifying the dependability of the data but often even they do not have sufficient information about the dependability of the data. Based upon our experience we strongly suggest that journals should insist upon such description.

Examiner effects. From two studies of emergent storybook reading, we have concluded that the storybook reading behavior of the children is robust and that refusals are strongly tied to behavior on the part of adult examiners. Most adults have thought for most of their lives that children cannot read prior to entry into conventional literacy. Many also think of young children as being fragile or, at least that their emergent reading ability is fragile. In this study most refusals were obtained by one examiner. The transcripts showed evidence of the children's attempts to begin to reenact the storybooks during the examiner's interactive reading. This examiner admitted that she thought the children would be pressured if she followed our procedures. This resulted in part of one data set being uninterpretable; fortunately, the sample size and partial evidence from the interactive readings made up for this problem.

In the future, we will be even more vigilent in data collection monitoring. We know that there is a developmental pattern in how adults learn to apply the emergent reading and writing analyses that we use. At first, they are highly accurate but this seems to be based upon an intuitive understanding. As they study the theory and examples more thoroughly, their

scoring becomes erratic and unreliable. Finally, as they develop more experience and a deeper understanding, they again become good scorers with high reliability.

Somewhat the same kind of pattern seems to be governing data collection as well. To safeguard against this problem affecting large samples in the future we are going to require that examiners stop whenever they meet with a refusal and check with the project director for guidance. Projects of this sort are too labor-intensive to run the risk of large numbers of refusals that do not appear to be valid reflections of children's ability and willingness to perform. We urge other researchers to report these kinds of patterns with adult researchers if they find them.

Educational Implications

A variety of educational implications of this study of young children's storybook reading could be drawn. However, we wish to focus this discussion specifically on classroom implementation projects that are currently being conducted by the investigators. Over the past three years, in the Palatine, Illinois, schools where the classroom data were collected, the research team has provided in-service presentations and classroom demonstrations using the research techniques. The objective has been for the researchers to collaborate with the teachers in adapting the research techniques and findings to fit their curriculum goals.

An especially significant aspect of this collaboration has been the development of a simplified version of the Sulzby classification scheme for use by classroom teachers. The eleven point version used in this research is too detailed for classroom application and does not add sufficiently to a teacher's

knowledge at the beginning of implementation to merit its use. The five point version is easy to learn and teachers have been able to use it easily.

In understanding how to use the Sulzby classification scheme, the teacher is required to observe the child's language and non-verbal behavior during storybook reading attempts and is asked to interpret how reading-like these behaviors are. Many teachers have looked at the researchers in amazement as they listen to a child "read" from a storybook and have made comments such as, "I have been seeing this, but I never before paid attention to it." In applying the emergent reading classification scheme, teachers are not merely learning to compare a correlate of one child's literacy knowledge and skills with that of groups of other children (as is the case with many reading readiness tests or checklists). Instead, because the scheme is based upon the current emergent reading behaviors of young children, it can serve to provide the classroom teacher with a theoretically-grounded perspective for understanding the young child's current literacy development. In addition to understanding the individual child, by learning to employ the instrument, the teacher is learning to take an emergent literacy perspective on teaching. In this sense the scale becomes a tool for teacher education.

The classification scheme can also serve to educate administrators and parents to an emergent literacy perspective on young children's storybook reading. It provides a framework within which to understand storybook reading behaviors that the children exhibit and to realize how these behaviors change over time. Such a specific example can serve teacher educators in their efforts to work with administrators in explaining the purposes of and need for a developmentally appropriate perspective on early childhood literacy education. When employed as part of the on-going

assessment program, the results from children's emergent readings of storybooks can also be used in parent-teacher conferences to explain the child's progress in reading development. The classification scheme, then, can function as vehicle for teacher training as well as an instrument for assessing young children's growth in storybook reading. In fact, a culminating part of the collaboration with the Palatine schools was the production of a videotape on the emergent literacy implementation aimed at informing the school board and the public about the project.

In San Antonio an important relationship has developed between the research funded by The Spencer Foundation and a curriculum implementation and evaluation project titled the Kindergarten Emergent Literacy Program. The purpose of the program is to provide a developmentally appropriate reading-writing curriculum for kindergartners. It began in 1984 in one classroom as a cooperative venture with the Northside Independent School District. Since then the program has been expanded to six schools within Northside Intermediate School District and to numerous classrooms in three other districts in the San Antonio area.

As would be expected, a core activity in the program is storybook reading. Teachers read to children on a daily basis. These group storybook readings are closely tied to a variety of response-to-literature activities (e.g., art, creative dramatics, or writing activities that stem from the story) and are a key to promoting emergent readings of storybooks among children when they go to the classroom library.

Several interesting research questions have stemmed from the promotion of group storybook readings and emergent storybook readings in the classrooms. One relates to the issue of variation in the way in which

teachers read their classes, analogous to the issue of variation in parent storybook reading that was addressed in this study. It was found that there are characteristic storybook reading styles that vary from teacher to teacher (Teale & Martinez, 1986; Teale, Martinez & Glass, in press). Such findings have, in turn, led back to the study of parent-child interaction in storybook reading. Having now worked with both parent-child storybook readings where the interaction is a more intimate one-to-one or one-to-two/three and the teacher-to-large-group readings, we suspect there may be important differences between the two associated with the different interactional constraints present in each configuration.

As the kindergarten program has expanded to classrooms with high numbers of children who come from homes where they were not read to and which did not provide a literacy background associated with success in reading and writing at school, the need for storybook reading experiences in school is even greater. A question raised by the research, however, is, "Should these storybook readings simply be additional teacher-to-class readings or should they be more like parent-child readings, that is one-to-one or one-to-two 'lap readings'?" In other words, is there actually something qualitatively different about being read to as an individual (or pair) than as a member of a large group?

Such questions are significant from a theoretical point-of-view because they directly address the issue of the language and social interactional characteristics of storybook reading events. They also have important pedagogical implications for early childhood and primary grade programs. Preliminary analyses comparing parents and teachers reading the same story

have already been begun. A great deal of interesting work remains to be done, however.

In a related project (Sulzby, Johnston, Olson, & Berger, in progress), we are comparing emergent literacy techniques alone, with emergent literacy techniques used with the computer as a literacy tool, and with a traditional basal reader (control) group in a five-year study of Computers in Early Literacy (Project CIEL). This project will compare disadvantaged and more advantaged children and, again, the issue of how much in-school experience is needed to off-set lack of literacy fostering in the home is a critical one.

Developments such as these indicate how the "Young Children's Storybook Reading" project funded by The Spencer Foundation dovetails into related educational research and development that we have been conducting with school-age children. Other researchers have also explored connections between our descriptions of young children's storybook reading and educational issues. Collaborations for Literacy: An Intergenerational Reading Project in the Boston area is a research and implementation project designed to improve adults' literacy skills by reading to and with young children (Nickse & Englander, 1985). Researchers in the project have utilized findings from our study in implementing and evaluating their work with parents and children. Recent attempts by Schnell and Geismar-Ryan (personal communication) to evaluate the effects of the Missouri Parents as First Teacher Project (formerly New Parents as Teachers) and to investigate issues of intergenerational literacy have also drawn upon our research. Projects such as these and other projects focusing upon implementing emergent literacy techniques show that basic research on storybook reading and educational

applications of that research can act as natural partners each informing the other.

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Family Demographic Data

Surname: Ramos (All names are pseudonyms)
Description: Middle Income Hispanic (MIH)
Duration in Study: 1 year,11 months

		Born	*Age*	*Education*	*Occupation*
Father:	Gerardo	USA	37	M.A.	Social policy researcher
Mother:	Carmen	USA	35	M.A.	Homemaker (formerly educational researcher

Child: Juanita (FC) Date of Birth: May 1982 Age at Entry: 2:0
(No siblings)

Language Factors: Language of Home: SPANISH/English (Spanish only in child's presence)
Child read to in: Spanish only
First language: Mother - Spanish
Father - Spanish

Surname: Corona
Description: Middle Income Hispanic (MIH)
Duration in Study: 2 years

		Born	*Age*	*Education*	*Occupation*
Father:	Paul	USA	37	B.A. - Architecture	Staff Manager-Phone Company
Mother:	Glenda	USA	37	B.A. - Bus. Admin.	Homemaker (Pt.time dept. store demonstrator)

Children: Patrick (FC) Date of Birth: July 1981 Age at Entry: 3:0
Susana Date of Birth: December 1974

Language Factors: Language of Home: ENGLISH
Child read to in: English only
First language: Mother - Spanish
Father - Spanish

Surname: Trevino
Description: Low Income Hispanic (LIH)
Duration in Study: 2 years, 1 month

		Born	*Age*	*Education*	*Occupation*
Mother:	Alma	USA	24	H.S. graduate	Homemaker

Children: Janie (FC) Date of Birth: September, 1981 Age at Entry: 2:11
Patty Date of Birth: April 1983
Celia Date of Birth: August 1984

Language Factors: Language of Home: ENGLISH/Spanish
Child read to in: Mainly English; a little Spanish
First language: Mother - Spanish/English bilingual

Surname: Garcia
Description: Low Income Hispanic (LIH)
Duration in Study: 7 months

		Born	*Age*	*Education*	*Occupation*
Father:	Lorenzo	USA	23	9th grade	Unemployed
Mother:	Anita	USA	21	H.S. dropout	Homemaker

Children: Lorenzo, Jr. (FC) Date of Birth: October 1981 Age at Entry: 3:1
Ernie Date of Birth: December 1982

Language Factors: Language of Home: ENGLISH/Spanish
Child read to in: English (mother reports she "wants to" read to them in Spanish)
First language: Mother - English/Spanish bilingual
Father - Spanish

Surname: Drabowski
Description: Middle Income Anglo (MIA)
Duration in Study: 2 years, 9 months

		Age	*Education*	*Occupation*
Father:	George	31	B.S. - Engineering	Engineer
Mother:	Joyce	32	B.S. - Food & Nutrition	Housewife/part-time comm. college instructor

Children: Hannah — Date of Birth: March 1982 — Age at Entry: 1:9
Carol — Date of Birth: December 1985
Sarah — Date of Birth: December 1985

Language factors: English only

Surname: Richards
Description: Middle Income Anglo (MIA)
Duration in Study: 1 year, 4 months

		Age	*Education*	*Occupation*
Father:	Don	38	B.A. - Mathematics plus some grad. courses	Computer software marketing
Mother:	Amy	34	B.A. - Mathematics plus 30 hrs. graduate business admin. courses	Housewife (formerly sales mktg. manager)

Children: Catherine (FC) — Date of Birth: July 1982 — Age at Entry: 2:7
Bobby — Date of Birth: November 1984

Language factors: English only

Surname: Langford
Description: Low Income Anglo (LIA)
Duration in Study: 11 months

	Age	*Education*	*Occupation*
Father: Sonny	28	H.S. Diploma	Technician for photog. lab.
Mother: Darla	27	10th grade	Housewife

Child: Shelly (FC) Date of Birth: January, 1983 Age at Entry: 1;7
(No siblings)

Language Factors: English only

Surname: Davis
Description: Low Income Anglo (LIA)
Duration in Study: 7 months

	Age	*Education*	*Occupation*
Mother: Ellen	37	H.S. Diploma	Homemaker

Child: Julie (FC) Date of Birth: April, 1983 Age at Entry: 1;4
(No siblings)

Language Factors: English only